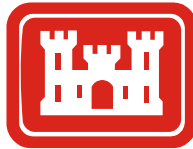


**PLANNING DESIGN REPORT
AND
ENVIRONMENTAL ASSESSMENT**

FOR

**OLMOS CREEK SECTION 206 AQUATIC ECOSYSTEM RESTORATION PROJECT
BEXAR COUNTY, TEXAS**



**U.S. ARMY CORPS OF ENGINEERS
FORT WORTH DISTRICT
819 TAYLOR STREET
FORT WORTH, TEXAS 76102-0300**

In Cooperation with

CITY OF SAN ANTONIO, TEXAS

NOVEMBER 2006

FINDING OF NO SIGNIFICANT IMPACT
PROPOSED IMPLEMENTATION OF THE OLMOS CREEK
SECTION 206 AQUATIC ECOSYSTEM RESTORATION PROJECT
SAN ANTONIO, BEXAR COUNTY, TEXAS

Description of Action. The United States Army Corps of Engineers (USACE) has developed a Planning Design Report (PDR) and integrated Environmental Assessment (EA) to assess the potential impacts to the environment that may result from the implementation of the Section 206 Aquatic Ecosystem Restoration Project on Olmos Creek, San Antonio, Bexar County, Texas. The recommended alternative would include the restoration of approximately 73 acres of riparian bottomland hardwood forest adjacent to Olmos Creek. Approximately six acres of aquatic habitat within Olmos Creek would be restored and improved by reducing erosion and increasing stream shade providing better habitat for a variety of freshwater species. Additionally, the recommended alternative would restore over 17 acres of riparian grassland by planting native grasses. Riparian grassland restoration would provide additional benefits to the study area by increasing habitat and species diversity and improving aquatic habitat conditions.


Anticipated Environmental Effects. Ecological factors guiding the development of restoration alternatives included the low species diversity and fragmentation of the existing riparian corridor, a lack of hard mast producing trees, a lack of trees greater than six inches diameter at breast height (dbh), an abundance of both non-native and invasive plant species, areas with low amounts of stream shade, areas experiencing high amounts of erosion, and a lack of native grass species. Fifteen economically feasible restoration alternatives, including the no action alternative, were identified through the planning process to address ecological needs within the project area. Under the no action alternative, proposed project measures would not be implemented and existing fish and wildlife habitat would continue to degrade due primarily to the large number of invasive plant species and associated urban encroachment. Other alternatives addressed various options for riparian corridor restoration and enhancement, vegetation plantings, erosion control, and old-field restoration. Thirteen of the fourteen remaining alternatives were eliminated from further consideration either because they did not meet habitat restoration objectives of the proposed project or had inferior benefit/cost ratios. The recommended alternative that was identified through the planning process would meet the long-term ecological and habitat restoration objectives of the project, provide an incrementally justified benefit/cost ratio, and have support from participating resource and sponsor agencies.

No significant adverse environmental impacts are anticipated with the recommended alternative for geologic, biological, or cultural resources. The recommended alternative is not likely to adversely affect any plant or animal species or habitat that is proposed or listed as threatened or endangered according to the Endangered Species Act. During construction, the recommended alternative would result in minor, short-term discharges to waters of the United States and is subject to provisions of Section 404 of the Clean Water Act. The recommended alternative would meet the conditions of Nationwide Permit (NWP) 13, Bank Stabilization, under Section 404. The recommended alternative, as proposed, would not induce or increase flood damages within the study area and is in compliance with executive order 11988, Floodplain Management.

Public Comments. Two comments were received from Natural Resource Agencies. The U.S. Fish and Wildlife Service provided a comment stating that they concurred with the project and provided recommendations for deer management during construction. The Texas Commission on Environmental Quality provided a comment asking USACE to coordinate with the local floodplain administrators. No comments were received from the general public or other resource agencies.

Facts and Conclusions. Based on a review of the information contained in this EA and the comments received, it is concluded that the implementation of the Olmos Creek Section 206 Aquatic Ecosystem Restoration Project is not a major Federal action, which would significantly affect the quality of the human environment within the meaning of Section 102(2)(c) of the National Environmental Policy Act of 1969, as amended.

DATE: 19 DEC 06


CHRISTOPHER W. MARTIN
Colonel, U.S. Army Corps of Engineers
District Engineer

SYLLABUS

This Planning Design Report / Environmental Assessment (PDR/EA) is submitted under the authority of Section 206 of the Water Resources Development Act of 1996, as amended. The purpose of this feasibility study is to identify areas of ecosystem degradation, evaluate measures to restore important ecological resources, and recommend a plan for implementation, if one can be found that is technically feasible, environmentally acceptable, and supported by the non-Federal partner. The goal of the recommended restoration alternative would be to restore aquatic habitat and the associated riparian community to benefit the variety of resident and migratory wildlife that utilize the study area.

Olmos Creek is located near the central portion of Bexar County, Texas, approximately 5 miles north of the City of San Antonio central business district. The study area is located on lands owned by the City of San Antonio and the City of Alamo Heights within the Olmos Basin Reservoir. The reservoir was created by the construction of Olmos Dam that had the sole purpose of flood control, protecting the City of San Antonio located just downstream. The reservoir basin, being limited to the types of development that could occur within the floodplain, has begun to attract a variety of recreational facilities including a city park, skeet range, golf course, baseball fields, and other recreational amenities. This has altered a substantial acreage of aquatic, grassland, and bottomland forest habitat located within the study area. The study area comprised of grassland, remnant bottomland forests, and in-stream aquatic habitat, lies within the Olmos Creek watershed and was found to be suitable for ecosystem restoration.

The recommended alternative consists of the restoration of approximately 73 acres of bottomland hardwood habitat, 17 acres of native riparian grasslands, and six acres of in-stream aquatic habitat. The total project cost is estimated at \$1,162,077. The total project cost would be shared between the Federal government (\$755,350) and the City of San Antonio (\$406,727), who would represent the non-federal partner. USACE would refund approximately \$112,704 to the City of San Antonio for additional lands, easements, rights-of-way, relocations, and disposal areas (LERRDs) above the 35% non-Federal cost share guidance for ecosystem restoration. The City of San Antonio would be responsible for all operation, maintenance, replacement, and repair costs upon completion of construction.

This report includes an environmental assessment to evaluate the potential effects that could result from project implementation. Items marked with an (*) indicate information required to fulfill National Environmental Policy Act requirements. A Finding of No Significant Impact has been signed for the proposed action.

For more information, please contact U.S. Army Corps of Engineers, Fort Worth District, CESWF-PER-EE, ATTN: Rob Newman (817)-886-1762, 819 Taylor Street, Fort Worth, Texas 76102

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INTRODUCTION

Location*

Olmos Creek is located near the central portion of Bexar County, Texas, approximately 5 miles north of the City of San Antonio central business district. The study area is located on lands owned by the City of San Antonio and the City of Alamo Heights. **Figure 1** shows the project vicinity within the San Antonio Metropolitan Area. **Figure 2** shows the specific location of the study limits in greater detail.

Study Authority*

The study is authorized under the continuing authority provided to the Chief of Engineers by Section 206 of the Water Resources Development Act of 1996, as amended. The U. S. Army Corps of Engineers (USACE) is the lead agency for this study. This study was initiated at the request of the San Antonio River Authority (SARA) on behalf of the City of San Antonio (COSA) in a letter dated February 28, 2002 (**Appendix A**).

Study Purpose, Area, and Scope*

The purpose of this study was to identify areas of ecosystem degradation, evaluate measures to restore important ecological resources, and recommend a plan for implementation, if one can be found that is technically feasible, environmentally acceptable, and supported by the non-Federal sponsor. The goal of a recommended restoration alternative would be to restore the riparian corridor and aquatic communities to benefit a variety of resident and migratory wildlife that utilize the study area. San Pedro Avenue and Olmos Dam demark the upper and lower study limits, respectively (**Figure 2**).

Field investigations were conducted to characterize riparian and aquatic habitat within the study area and to evaluate their overall ability to support resident and migratory wildlife species. A multidisciplinary team approach was used to conduct the studies and included the USACE, U.S. Fish and Wildlife Service (USFWS), SARA, Texas Parks and Wildlife Department (TPWD), and the COSA.

Identification of Preliminary Goals

Stream channels and associated riparian corridors are natural resource types that are increasingly exposed to threat by removal or modification as urban areas continue to grow. The importance and need for protection of these types of habitats is supported by the evolution of the Federal regulations under Section 404 of the Clean Water Act, which not only places emphasis on avoiding and minimizing stream impacts, but also stresses the need for maintaining vegetative buffers or corridors when practicable.

Aquatic and riparian habitat within the Olmos Creek study area have experienced moderate degradation and disturbance due to various activities such as construction of recreational facilities and encroachment of residential developments. These activities have led to a fragmented riparian corridor containing a number of invasive / non-native plant species as well as increased erosion. The riparian area along Olmos Creek has the ability to improve water quality, provide habitat and refuge for native plants and animals, improve aesthetics, and restore connectivity with other landscapes (Verry et al., 2000). These attributes are especially important in urban areas like San Antonio, Texas, where riparian habitat is limited. Noss et al. (1995) designated riparian forests, especially those occurring in the South, as a nationally endangered ecosystem due to an 84% national decline in riparian forests since early settlement. The bottomland hardwood ecosystem in Texas prior to European settlement once extended over 6.5 million hectares (ha); it is estimated that less than 40% of this original extent still remains (Frye, 1986), with only a few small and isolated patches of old growth scattered amongst the floodplains of the eastern third of the state. Losses of intact bottomland hardwoods in the past 50 years have at times been greater than 120,000 ha per year (Barry and Knoll, 1999). The study team recognized opportunities for restoration and enhancement along and within Olmos Creek requiring only minimal modification of the existing landscape. The study team decided that the restoration efforts would focus on three primary

areas within the Olmos Creek system: 1) Restoration of the existing riparian forest corridor to address low species diversity, fragmentation, a lack of hard mast producing trees, a lack of stream shading, and an abundance of both invasive and non-native plant species; 2) Restoration of aquatic habitat by addressing excessive bank erosion and subsequent sedimentation of in-stream habitat; and 3) Restoration of native riparian grassland to increase habitat diversity within the riparian corridor and improve aquatic habitat conditions.

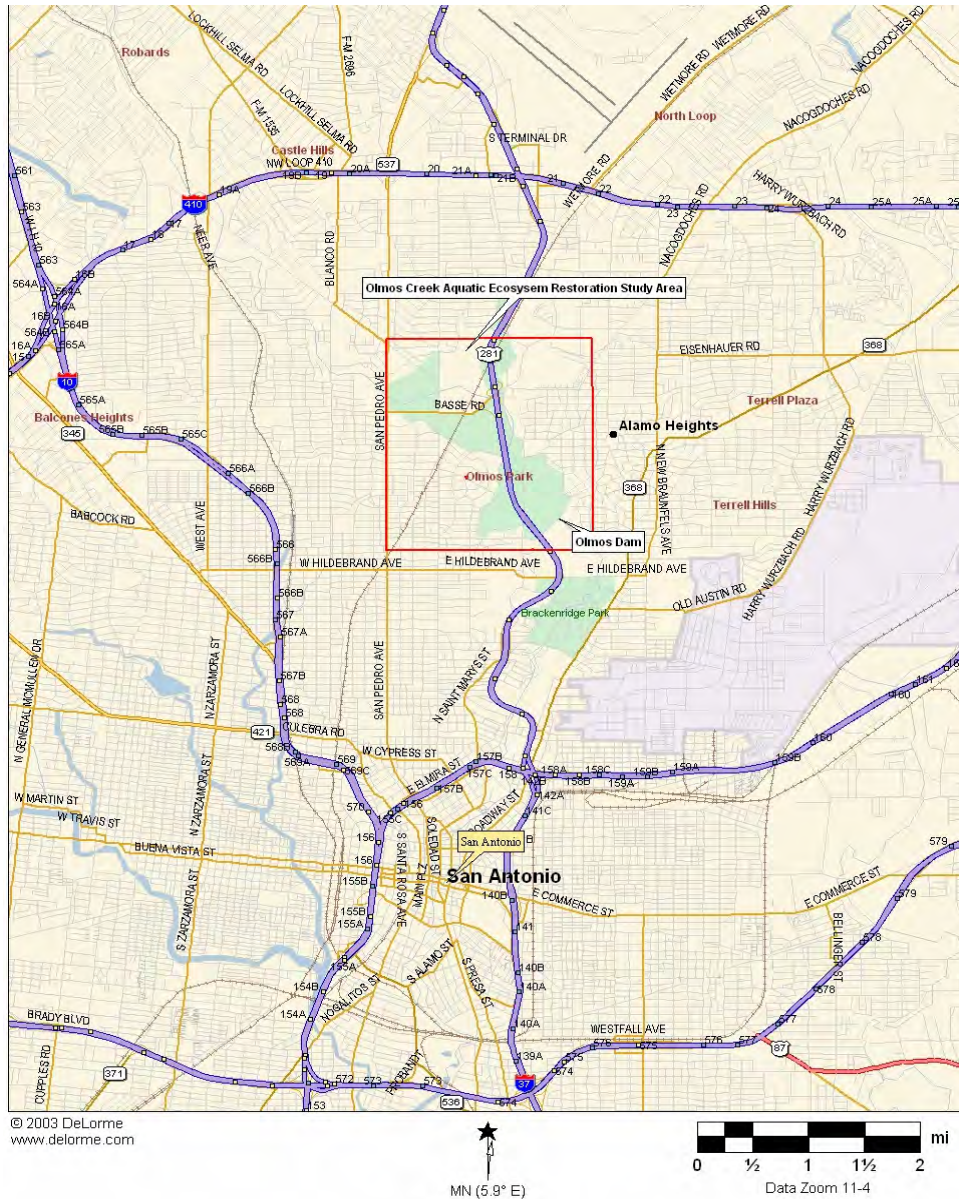


Figure 1. Olmos Creek General Study Area Location

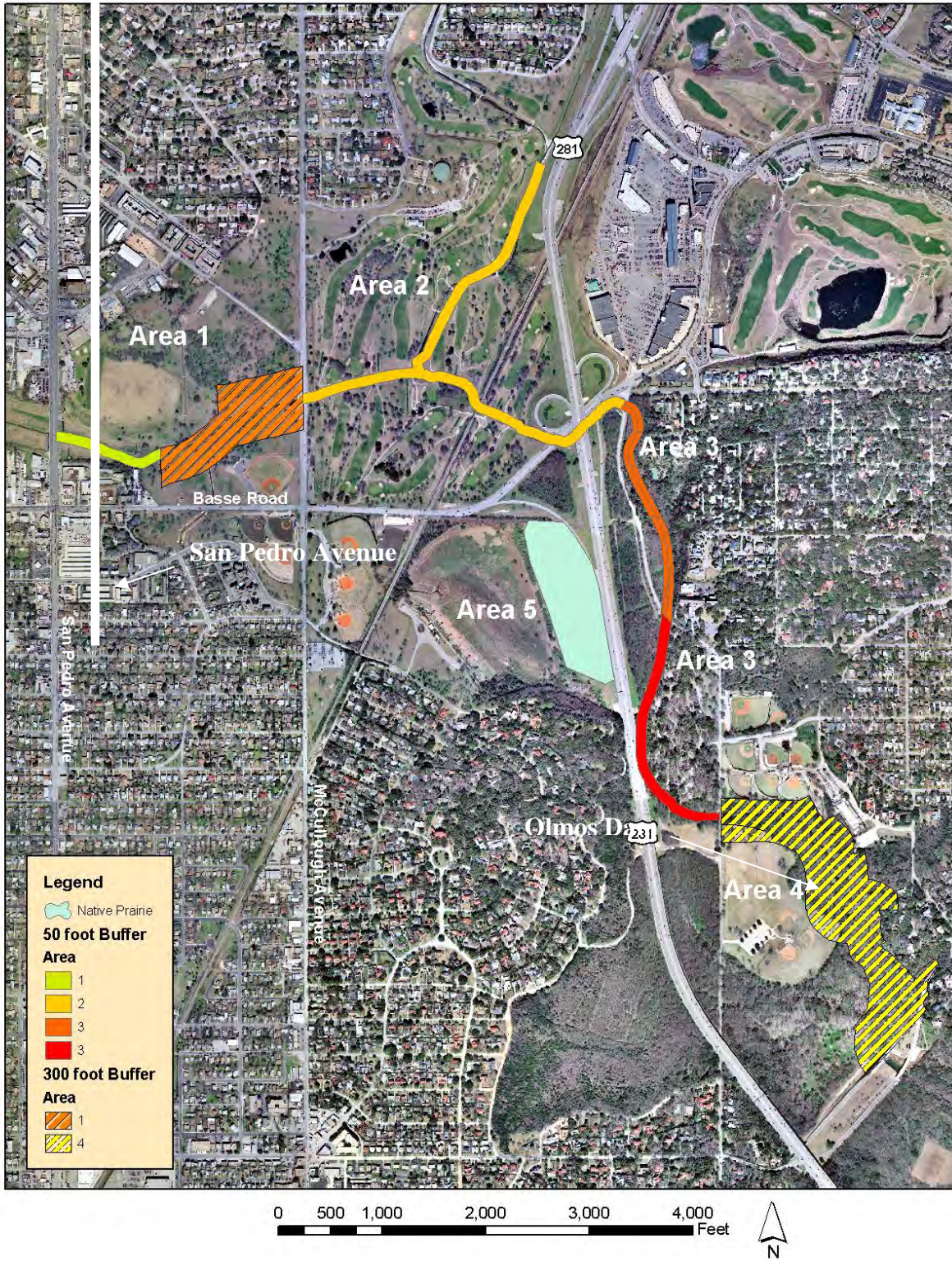


Figure 2. Olmos Creek Project Study Limits

EXISTING CONDITIONS*

Climate

San Antonio has a modified subtropical climate because of its location on the edge of the Gulf Coastal Plains. The average temperature (based on 100-year figures) is 69.9 degrees Fahrenheit (°F). The humidity varies from an average of 80% in the early morning to an afternoon level of 50%. San Antonio averages about 28 inches of rain per year, with the heaviest amounts in May and September. Winter temperatures dip below freezing only about 20 days per year on the average.

Natural Regions, Geology, and Soils

The proposed project area is located in central Bexar County. Bexar County lies within three of the eleven Texas Natural Regions: 1) South Texas Brush Country; 2) Edwards Plateau; and 3) Blackland Prairies. The southern two-thirds of the county is a relatively level or undulating plain sloping upward from the southeast to the northwest rising from about 500 to 1000 feet in elevation. The northern third is an old eroded plateau that has been dissected by numerous streams that generally flow in a northwest to southeast direction. According to the 1992 San Antonio East, Tex. 7.5 Minute Quadrangle, the surface topography of the proposed project area is approximately 700 feet above mean sea level (msl) with gentle sloping to the south.

The formations exposed at the surface in San Antonio are those of the Mesozoic and Cenozoic eras. The geology underlying the proposed project area is fluvial terrace deposits. These deposits are streambed deposits typically consisting of clays, gravels, sands, and silts.

The soils in the proposed project area are part of the Austin-Tarrant association. This association is comprised of moderately deep and very shallow clayey soils over chalk and marl. The proposed project area is mainly comprised of the Trinity soil series. The Trinity series consists of alluvial soils that are deep, dark colored, and nearly level. Trinity and Frio soils, frequently flooded, occur as narrow, long, and irregularly shaped areas on the flood plains of small streams and larger field drainage ways. They are mostly in the northern and central parts of the county. Furthermore, these soils are capable of supporting a heavy cover of vegetation, are naturally high in fertility, and have a good capacity for holding water.

Hydrology

Basin Description - Olmos Creek is a headwater tributary to the San Antonio River, in San Antonio, Texas. It originates at Interstate Highway Loop 1604, about 7 tenths of a mile east of the intersection of Interstate Highway 10, and then proceeds in a southeasterly direction, paralleling the Southern Pacific Railroad to the Interstate Highway Loop 410 crossing. Olmos Creek then continues southeastward to the San Pedro Avenue crossing and then turns in a more eastward direction as it enters the flood pooling area of Olmos Reservoir. This reservoir, often referred to as a "dry detention" project, is formed by Olmos Dam (constructed in 1925-1926), which is situated adjacent to and on the east side of US Highway 281, about 6 tenths of a mile north of its intersection with Hildebrand Avenue. Approximately 8 tenths of a mile downstream from the dam, Olmos Creek reaches its confluence with the San Antonio River, at the San Antonio Springs, in the vicinity of the Hildebrand Avenue crossing.

The 32 square-mile watershed above Olmos Dam is generally oval in shape, with a length of about 10.5 miles and an average width of about 3.0 miles. Elevations within this relatively steep basin range from about 1,060 feet National Geodetic Vertical Datum (NGVD) to about 680 feet NGVD. The watershed is highly developed, primarily with residential use, but significant corridors having commercial use exist along each of the major thoroughfares bisecting the watershed.

Olmos Dam is operated exclusively as a detention basin for controlling excessive amounts of water during flood periods. Water is not impounded within the reservoir during dry periods. The dam is a concrete, gravity-type structure on rock foundation, 1,941 feet long and 60 feet high above the streambed.

The outlet structure consists of six rectangular conduits, each 6.5 feet wide and 8 feet high at their entrance, controlled by slide gates. These conduits are drawn down to dimensions of 5.75 feet wide by 7.83 feet high, at a point approximately 15 feet from the upstream face of the dam. The reservoir has a storage capacity of about 15,500 acre-feet at the crest of the dam, elevation 728.0. At this elevation, approximately 1,050 acres of land would be inundated.

Prior Studies - A few studies have been undertaken specifically regarding the hydrologic performance and/or general safety of the Olmos Dam. These include: “Stability Report – Olmos Dam” in July 1974 and “Definite Project Report” in December 1975, both by Hensley-Schmidt, Incorporated.

The original flood insurance study (FIS) was prepared by the USGS for the Federal Emergency Management Agency (FEMA) in July 1979. It became effective on 15 December 1983. Based on the flood profiles presented in the currently effective (4 January 2002) FIS report, the Olmos Reservoir pool elevations (in feet, NGVD) for selected flood recurrence intervals are as follows:

<u>10-Year</u>	<u>50-Year</u>	<u>100-Year</u>	<u>500-Year</u>
717.8	723.4	726.2	735.4

An ongoing FIS update, under the Limited Map Maintenance Program (LMMP) has recently been submitted to FEMA for review. The LMMP FIS relates primarily to the San Antonio River and San Pedro Creek (a major right bank tributary near downtown San Antonio), but happens to include updated hydrologic analyses related to the inflows and routing through the Olmos Reservoir, under present watershed development conditions. It should be noted that the currently effective FIS for Olmos Creek is not scheduled for any revision as part of the LMMP FIS activities.

Development of Discharge Versus Frequency Relationships - The U.S. Army Corps of Engineers (USACE) hydrologic analysis computer program "HEC-1" was used to compute the synthetic rainfall, runoff volumes, and unit/flood hydrographs, to route the flood hydrographs downstream, and to tabulate frequency peak discharges. The computed probability peak pool elevations in the Olmos Reservoir are outlined in **Table 1** below.

Table 1 -- Olmos Reservoir Peak Pool Elevations

Annual Exceedance Frequency (Percent)	Recurrence Interval (Years)	Peak Pool Elevation (Feet NGVD)
50	2	709.0
20	5	713.8
10	10	717.1
4	25	719.6
2	50	721.2

Surface Water and Other Aquatic Resources

The proposed project area includes a reach of Olmos Creek extending from San Pedro Avenue to Olmos Dam (**Figure 2**). Olmos Creek is an ephemeral stream that derives its flow from three sources – rainfall, stormwater runoff, and the backwater effects of Olmos Dam.

Existing water quality in Olmos Creek is affected by rainfall and associated stormwater flows originating from both industrial and non-industrial non-point sources. The State of Texas List of Impaired Water Bodies, also known as the Clean Water Act (CWA) Section 303(d) List, identifies: 1) water bodies that do not meet the standards set for their use, or are expected not to meet their use in the near future; 2)

which pollutants are responsible for the failure of a water body to meet standards; and 3) water bodies that are targeted for clean-up activities within the next two state fiscal years. The development of a Total Maximum Daily Load (TMDL) is required for those pollutants that exceed established water quality standards. A TMDL is an estimate of the maximum amount of pollution a body of water can receive and still meet water quality standards set for its use. The major parameters that are measured to determine whether a water body meets the standard for its use are metals, organics, fecal coliform bacteria, dissolved oxygen, and dissolved solids. Currently, no water quality data is available for Olmos Creek. However, based on the Draft Texas 2002 CWA Section 303(d) List, the Upper San Antonio River, Segment 1911, exceeds the water quality standard for fecal coliform bacteria. Segment 1911 extends from a point 1,968 feet downstream of FM 791 at Mays Crossing near Falls City in Karnes County to a point 328 feet upstream of Hildebrand Avenue at San Antonio in Bexar County. Although this segment does not include Olmos Creek, it is likely that similar water quality exists due to their proximity (i.e. – Olmos Creek contributes directly to the headwaters of the Upper San Antonio River). **Figure 3** below depicts the approximate location of Segment 1911 in relation to Olmos Park, which is located slightly to the north and west.

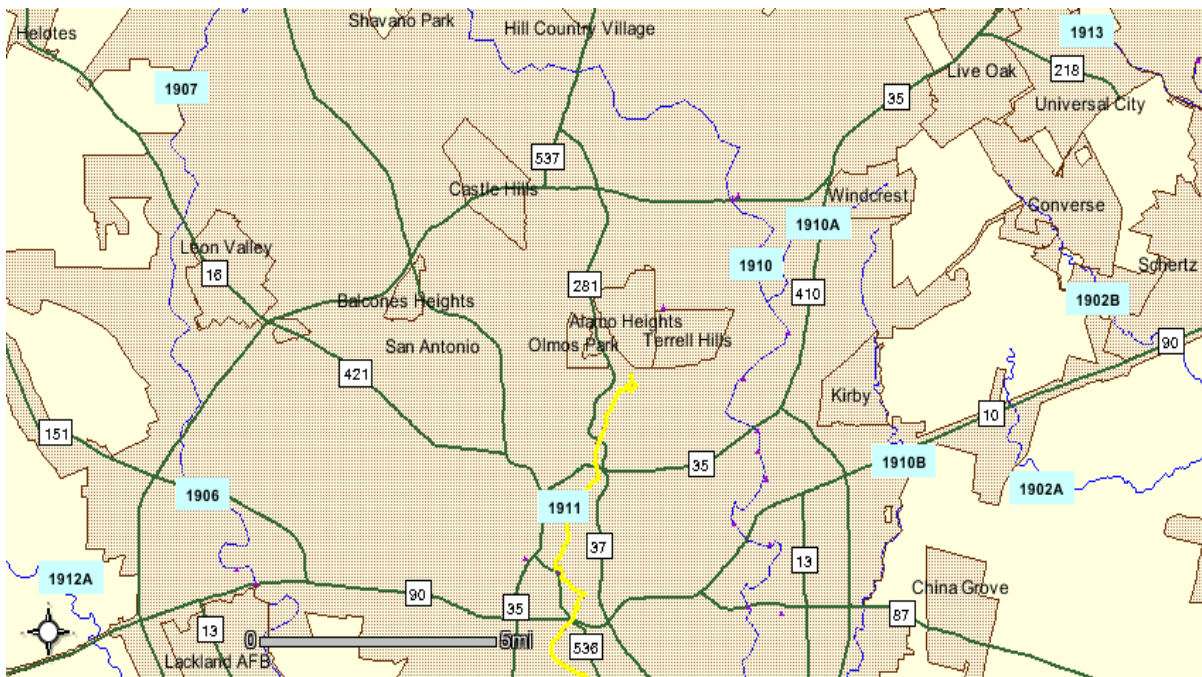


Figure 3. Location of Segment 1911 (Upper San Antonio River) in Relation to Olmos Creek.

The proposed project area lies over the Edwards Aquifer Artesian Zone. The Edwards Aquifer is the primary source of groundwater within the proposed project area. It is a Federally-designated ‘sole source’ aquifer, serving as the only source of drinking water for the COSA. The aquifer is a limestone formation associated with the Balcones Fault Zone.

According to the Environmental Protection Agency (EPA) and USACE, wetlands are areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soils. According to the USFWS National Wetlands Inventory (NWI) map, San Antonio, TX East sheet, three types of wetlands are located within the proposed project area. There are three Riverine, Intermittent, Streambed, Temporarily Flooded, Excavated (R4SBAX) wetlands, two Palustrine,

Unconsolidated Bottom, Permanently Flooded, Diked/Impounded (PUBHh) wetlands, and one Riverine, Lower Perennial, Unconsolidated Shore, Seasonally Flooded (R2USC) wetland located between San Pedro Avenue and the Missouri Pacific Railroad. No wetlands are indicated on the NWI map between the Missouri Pacific Railroad and Olmos Dam.

Fish species that may occur in Olmos Creek include largemouth bass (*Micropterus salmoides*), Guadalupe bass (*Micropterus treculi*), channel catfish (*Ictalurus punctatus*), and blue gill (*Lepomis macrochirus*). Exotic species that may occur are common carp (*Cyprinus carpio*), introduced sunfish species (*Lepomis spp.*) and introduced shad species (*Dorosoma spp.*). Other tolerant species such as Mozambique Tilapia and Rio Grande Cichlids may also occur. A list of fish species known to occur in this area can be found in **Appendix G**.

Several parameters were measured to determine the relative value of existing in-stream aquatic habitat within the study area. The parameters were chosen based on field observations that noted two key problems: 1) lack of stream canopy cover (stream shading) in Areas One and Two (**Figure 2**), and 2) areas of erosion in Areas One and Two (**Figure 2**). To quantify the extent of the above problems, measurements of the existing stream shade and amount of embeddedness were taken within the study area. Embeddedness is measured as a percentage to which a rock on the streambed is buried, or embedded in finer materials. Because specific habitat suitability models do not exist for the parameters that were measured, best professional judgment was used to extrapolate the values of the measurements and normalize those values to obtain a habitat index value between 0.0 and 1.0. Within the evaluation, a habitat index value of 0.0 represents the lowest comparative value of habitat whereas 1.0 represents the optimum value of a particular habitat. Habitat units for each area were then calculated by multiplying the habitat index value by the acreage of available habitat. The aquatic habitat units based on stream shade are summarized in **Table 2**.

Table 2 – Existing Habitat Units Based on Stream Shade for Olmos Creek

Location	Habitat Index Value	Acres	Habitat Units
Area One	0.0	0.93	0.00
Area Two	0.0	2.11	0.00
Area Three	1.0	1.59	1.59
Area Four	1.0	1.17	1.17

*Note: Locations of specific study areas are identified in Figure 2.

Embeddedness measurements were made with grab samples along a 2,500 feet stretch of Olmos Creek in Area Three. Area Three was specifically targeted due to its location downstream of the areas exposed to high erosion forces in Areas One and Two. Although embeddedness measurements were not taken in Areas One, Two, and Four, habitat index values were determined using visual assessment and best professional judgment. The aquatic habitat units based on embeddedness are summarized in **Table 3**.

Table 3 – Existing Habitat Units Based on Embeddedness for Olmos Creek

Location	Habitat Index Value	Acres	Habitat Units
Area One	0.9	0.93	0.84
Area Two	0.9	2.11	1.89
Area Three	0.9	1.59	1.43
Area Four	0.9	1.17	1.05

Using the above data, an overall assessment of the aquatic environment was made by averaging the habitat units for both stream shade and embeddedness throughout the study area excluding Area Five. **Table 4** summarizes the total aquatic habitat units based on the above parameters.

Table 4 – Existing Aquatic Habitat Units Based on Embeddedness and Stream Shade for Olmos Creek

Location	Stream Shade Habitat Units	Embeddedness Habitat Units	Average Habitat Units
Area One	0.00	0.84	0.42
Area Two	0.00	1.89	0.95
Area Three	1.59	1.43	1.51
Area Four	1.17	1.05	1.11

Aquatic Environment. As indicated in the above tables, stream shade ranged from an index value of 0.0 in Areas One and Two to 1.0 in Areas Three and Four. At the same time, embeddedness measurements were consistently high in Areas One through Four, scoring 0.9 in all areas. Overall, the aquatic environment in Areas One and Two scored the lowest due to their low stream shade index values while Areas Three and Four scored much higher due to lowered amounts of embeddedness and higher percentages of stream shade.

Riparian Wildlife Habitats

Bexar County lies within the Texan, Tamaulipan and Balconian biotic provinces. The proposed project area lies entirely within the Olmos Basin, an urbanized portion of the City of San Antonio. The majority of the study area upstream of Basse Road may be characterized as severely degraded and fragmented bottomland forest that is now being used for recreational purposes such as golf, baseball, and softball. Only a very narrow strip of riparian corridor still exists in this region. The majority of the study area downstream of Basse Road can be classified as moderately degraded bottomland forest. This area is less fragmented but contains few hard mast producing trees and is quickly becoming overrun with invasive and non-native species, especially *Ligustrum spp.* Although lacking in species richness and overall species diversity, all structural layers are present (herbaceous, shrub, tree) which provide more opportunities for wildlife use.

Animals that would normally be found in this type of environment are: raccoon (*Procyon lotor*), Eastern cottontail (*Sylvilagus floridanus*), Eastern fox squirrel (*Sciurus niger*), Virginia opossum (*Didelphis virginiana*), Hispid cotton rat (*Sigmodon hispidus*), and striped skunk (*Mephitis mephitis*). There are

many species of birds, both migrant and resident, in Bexar County and the proposed project area. Some of the most common are: Carolina chickadee (*Poecile carolinensis*), northern cardinal (*Cardinalis cardinalis*), northern mockingbird (*Mimus polyglottos*), red-tailed hawk (*Buteo jamaicensis*), and turkey vulture (*Cathartes aura*). Common reptiles and amphibians likely to inhabit the proposed project area are: cricket (*Acris crepitans*) and leopard frogs (*Rana sphenoccephala*), Gulf coast toad (*Bufo valliceps*), slider (*Trachemys scripta*), yellow mud turtle (*Kinosternon flavescens*), and diamondback water snake (*Nerodia rhombifer*).

An overall evaluation of the quality of existing riparian habitats within the proposed project area was conducted implementing the Habitat Evaluation Procedure (HEP) developed by the USFWS. The HEP utilizes a Habitat Suitability Index (HSI), which ranks the comparative value of habitat either for a single species, multiple species, or on an ecosystem basis. Within the evaluation, an HSI value of 0.0 represents the lowest comparative value of habitat whereas 1.0 represents the optimum value of a particular habitat. Two habitat types were selected that best represent the wildlife communities (habitats) surveyed in the project areas. The raccoon, barred owl (*Strix varia*), Eastern fox squirrel, and green heron (*Butorides virescens*) were used to represent species that utilize riparian woodland habitat. The red-tailed hawk, scissor-tailed flycatcher (*Tyrannus forficatus*), eastern meadowlark (*Sturnella magna*), and eastern cottontail were used to represent species that utilize riparian grassland habitat. These baseline values were used to determine the average annual habitat units gained over the life of the project for each restoration alternative. **Table 5** below summarizes the existing habitat conditions as determined by the use of HEP.

It should be noted that the original habitat type that once existed in Area Two was bottomland hardwood forest. This area has now been converted into a municipal golf course. As such, future without project conditions for Area Two were based on the value of this area as a bottomland hardwood forest.

Table 5 – Existing Riparian Habitat Conditions as Determined by Habitat Evaluation Procedures

Habitat Types	Acreage	HSI Value	Habitat Units
Riparian Woodland (Area 1)	18.53	0.38	7.04
Riparian Grassland (Area 2)	6.50	0.53	3.45
Riparian Woodland (Area 3)	12.46	0.82	10.22
Riparian Woodland (Area 4)	37.47	0.60	22.48
Riparian Grassland (Area 5)	17.62	0.55	9.69
Total:	92.58	NA	52.88

Riparian Grassland. It was determined that the HSI values for grassland communities within the study area ranged from 0.33 for the eastern cottontail in Area Two to 1.0 for the scissor-tailed flycatcher in Area Five. This provided for an overall average of 0.53 for the grassland habitat located in Area Two to 0.55 for the grassland habitat located in Area Five. Although the grasslands were considered optimum habitat for the scissor-tailed flycatcher, they were considered poor habitat for the eastern cottontail (lack of hiding cover) and meadowlark (lack of grass for food production and lack of perching sites).

Riparian Woodland. HSI values for riparian forest habitats ranged from 0.08 for the fox squirrel in Area One to 0.93 for the green heron in Area Three. Area One had the lowest HSI value (0.38) due to clearing

of trees for recreational purposes. Areas Three and Four were more characteristic of a riparian forest habitat and therefore had higher HSI values (0.60 – 0.82). However, intrusion of invasive and non-native species and a lack of hard mast trees lowered overall HSI values.

Endangered and Threatened Species

There are currently eleven Federally-listed endangered species and one Federally-proposed threatened species in Bexar County as shown in **Table 6** below. In addition, several species designated by the TPWD as threatened, endangered, or rare are located within Bexar County.

Table 6 – Federally Listed Threatened and Endangered Species for Bexar County

Common Name	Scientific Name	Listing Status
Blacked-capped vireo	<i>Vireo atricapillus</i>	Endangered
Braken Bat Cave Meshweaver	<i>Cicurina venii</i>	Endangered
Cokendolpher Cave Harvestmen	<i>Texella cokendolpheri</i>	Endangered
Golden-cheeked warbler	<i>Dendroica chrysoparia</i>	Endangered
Government Canyon Bat Cave Meshweaver	<i>Cicurina vespera</i>	Endangered
Government Canyon Bat Cave Spider	<i>Neoleptoneta microps</i>	Endangered
Ground beetle (no common name)	<i>Rhadine exilis</i>	Endangered
Ground beetle (no common name)	<i>Rhadine infernalis</i>	Endangered
Helotes mold beetle	<i>Batrisodes venyivi</i>	Endangered
Madla’s Cave Meshweaver	<i>Cicurina madla</i>	Endangered
Robber Baron Cave Meshweaver	<i>Cicurina baronia</i>	Endangered
Mountain plover	<i>Charadrius montanus</i>	Threatened

Based on respective habitat requirements and field observations, no Federally-listed endangered species or Federally-proposed threatened species are expected to be encountered within the proposed project area. In addition, the probability of encountering TPWD-designated threatened, endangered, or rare species would be very low.

Recreational, Scenic, and Aesthetic Resources

When not being utilized for floodwater storage, much of the Olmos Basin provides recreational use for citizens through parks, playgrounds, ball fields, a skeet range, and a municipal golf course.

The proposed project area consists of two very different habitat types. Below Basse Road, adjacent to Olmos Creek, a dense riparian corridor containing lush vegetation and a mature tree canopy exists. In an urban setting, such as this portion of Olmos Creek, this type of area tends to increase the scenic and aesthetic value of the community. Upstream of Basse Road, adjacent to Olmos Creek, the environment consists mainly of constructed recreational amenities, i.e. - golf courses and ball fields, as well as city open space. Although these areas increase the recreational values of the study area, their scenic and aesthetic values can be improved upon. A stream channel, such as Olmos Creek, that flows through an urban setting is frequently ecologically impoverished and perceived as aesthetically displeasing because it lacks the local in-stream and riparian heterogeneity and complexity found in naturally functioning stream corridors.

Cultural Resources

An archaeological investigation was conducted to determine if significant cultural resources were present within the study area. Currently, there are seven archeological sites that have been recorded and are on file at the Texas Archaeological Research Laboratory for the Olmos Creek Study area. These sites are located along Olmos Creek and five of the seven are concentrated on the south side of the existing Olmos Dam. Four of the sites located on the south side of the dam consist of lithic scatters containing burned rock and lithic tools. Another site located at the base of the dam in vicinity to the four-recorded sites, contained similar burned features, but was not recorded. The fifth recorded site, located south of the dam, is a historic trash dump dating to at least the 19th century. The remaining two sites located north of the dam consist of discrete lithic scatters, one with associated midden debris and burned rock and the other with lithic tools.

The search was limited to within the five identified study areas on both sides of Olmos Creek. The recorded sites are limited by the amount of previous work conducted in these areas. Therefore, the full extent of cultural resources within the overall project area is unknown pending a full cultural resources survey, inventory, and assessment of particular proposed impact areas.

Hazardous Materials

A review of standard environmental record sources in accordance with the American Society for Testing and Materials (ASTM) Practice E 1527 was conducted by the Environmental Design Branch, Fort Worth District, Corps of Engineers as part of a Hazardous, Toxic, and Radioactive Waste (HTRW) Investigation for Olmos Creek, Section 206 Study in San Antonio, Texas. Environmental Data Resources, Inc. (EDR) was contracted to search Federal and state environmental databases that track activities associated with hazardous waste and incidents that have resulted in major environmental impairment. A summary of the EDR search results are located in **Appendix B**.

A total of twenty-eight federal databases, six State of Texas databases, two Brownfield databases, and twelve "other" state databases were searched for potential HTRW activities within the study area. The search resulted in the identification of three Resource Conservation and Recovery Information System (RCRIS) listings, fifteen Leaking Underground Storage Tank (LUST) listings, thirteen Underground Storage Tank (UST) listings, one Facility Index System (FINDS) listing, and one State of Texas Industrial Hazardous Waste (TX IHW) listing within a one-mile radius of the study area.

Floodplains

Executive Order 11988 has an objective to avoid, to the extent possible, long and short-term adverse impacts associated with occupancy and modification of the base floodplain. Further objectives are the avoidance of direct and indirect support of development in the base floodplain wherever there is a practicable alternative and protection and restoration of natural floodplain functions. U.S. Army Corps of Engineers regulations for implementing EO 11988 (ER 1165-2-26) defines the base floodplain as the one percent chance, or 100-year floodplain. For the most part, lakes, wetland features, and flood damage reduction measures require being located within the floodplain to provide their intended function. Some recreational features do not need to be located within the floodplain to fulfill their basic purposes.

The proposed project area lies exclusively within the Olmos Basin and the 100-year floodplain according to the Flood Insurance Rate Map (FIRM), Bexar County, Texas, Panel 451, Map Number 48029C0451 E, February 16, 1996. As stated previously, the primary land use within Olmos Basin is floodwater storage for the protection of downtown San Antonio. When the area is not inundated with floodwaters, it is used primarily for recreation.

Air Quality

The EPA uses six "criteria pollutants" as indicators of air quality, and has established for each of them a maximum concentration above which adverse effects on human health may occur. These threshold concentrations are called National Ambient Air Quality Standards (NAAQS). Areas of the country where air pollution levels persistently exceed the NAAQS may be designated as nonattainment areas. Conversely, areas of the country that do not persistently exceed the NAAQS are designated as attainment areas. The proposed project area would be located entirely within the Metropolitan San Antonio Intrastate Air Quality Control Region (AQCR), AQCR #217. As seen in **Figure 4** below, this area is considered "Near nonattainment for ozone only" according to the Texas Commission on Environmental Quality (TCEQ).

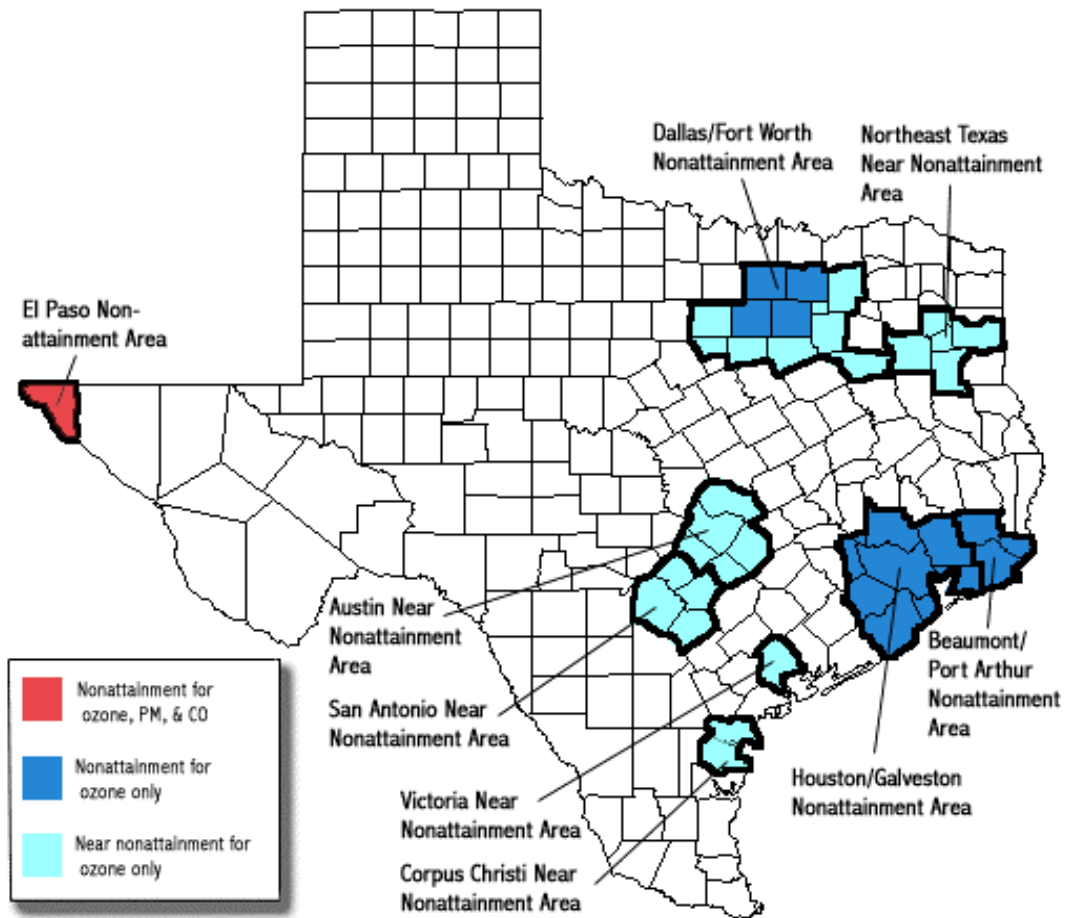


Figure 4. Counties Designated as Attainment, Near Nonattainment, or Nonattainment for Criteria Pollutants in Texas.

Ozone (O_3) is a photochemical oxidant and the major component of smog. Ozone is not emitted directly into the air but is formed through chemical reactions between precursor emissions of volatile organic compounds (VOC) and oxides of nitrogen in the presence of sunlight. High temperatures stimulate these reactions so that elevated concentrations of O_3 are typically detected during the warmer months. Precursors for O_3 are emitted by transportation, industrial, and biogenic sources. The NAAQS threshold value for ozone is 0.12 parts per million (ppm) or 125 parts per billion (ppb), measured as one-hour average concentration.

Noise

Pursuant to Article III, Chapter 21 of the City of San Antonio Municipal Code, maximum permissible noise levels depend on the land use of the property that contains the noise source (e.g., industrial, commercial, or residential) and the land use of the property receiving that noise. Maximum permissible noise levels range from 63 average weighted decibels (dBA) in residential zoning districts to 85 dBA in the Entertainment zoned districts. Baseline noise levels within the immediate vicinity of the proposed project area would not be expected to exceed the maximum permissible noise levels for a prolonged period of time.

Environmental Justice

Based on the U.S. Census Bureau, Census 2000 Redistricting Data, the COSA population is 58.7% Hispanic, 31.8% White, 6.5% Black, and 3.0% Other. In accordance with the provisions of Executive Order 12898, each Federal agency shall conduct its programs, policies, and activities that substantially affect human health or the environment, in a manner that ensures that such programs, policies, and activities do not have the effect of excluding persons (including populations) from participation in, denying persons (including populations) the benefits of, or subjecting persons (including populations) to discrimination under, such programs, policies, and activities, because of their race, color, or national origin.

PLAN FORMULATION*

The existing riparian and aquatic communities in the study area do not represent the maximum habitat quality that could be expected within the study area. Due to continued urban growth and development in the region, open spaces are either removed from the landscape or degraded due to secondary effects such as fragmentation or sedimentation of aquatic habitats. As urban encroachment continues, greenbelts along streams and rivers are becoming increasingly scarce and fragmented. Subsequent effects from removal or fragmentation of habitat include reduction of vegetative structural diversity and overall species richness.

Specific ecological factors guiding the development of restoration alternatives included the low species diversity and fragmentation of the existing riparian corridor, a lack of hard mast producing trees, a lack of trees greater than six inches (dbh), an abundance of both non-native and invasive plant species, areas with low amounts of stream shade, areas experiencing high amounts of erosion, and areas with poor vegetative cover that results in excessive runoff and subsequent stream bank instability and poor stream water quality. Currently, the riparian corridor along Olmos Creek is fragmented, very narrow in places, and lacking in species diversity. Given the lack of mast producing species in the area, natural regeneration is limited to invasion by light-seeded plants propagated by wind. Seedlings of heavy-seeded oak species are most prevalent in areas where floodwaters cause deposition of acorns and where duff is sufficient for regeneration. Currently, there is an inadequate supply of hard mast producers within the contributing watershed to provide natural establishment of a forest dominated by hard mast producers. The lack of species diversity and hard mast producing trees is most prevalent in the upper portion of the study area (Areas One and Two). Based on the existing environmental degradation within the study area, plan formulation was guided by a number of objectives, which included:

- Restoration and enhancement of the aquatic environment by increasing stream shade and reducing erosion;
- Restoration and enhancement of the riparian corridor through the reduction of both non-native and invasive species;
- Increasing species diversity of existing riparian corridors focusing on mast producing species;

- Reforestation with appropriate species of open areas thereby expanding existing riparian corridors and reducing fragmentation; and
- Diversification of both habitat and wildlife within the riparian corridor and improvement of aquatic habitat through restoration of riparian grassland habitat.

Measures Considered but Screened from Detailed Study

This section describes measures and alternatives that were initially considered but eliminated from detailed study. During the development of the Preliminary Restoration Plan (PRP) several measures were formulated to help restore or improve the aquatic and riparian habitat in the different areas of Olmos Creek. Several of these measures were removed from consideration after further review. An interdisciplinary project delivery team (PDT), which included members from the COSA, SARA, USACE, USFWS, and TPWD evaluated possible structural and non-structural measures that could be implemented to improve the habitat of Olmos Creek. Because each Area (or reach) within the study area had unique environmental characteristics and associated problems, each area was considered individually. As such, measures and alternatives were initially formulated for each area separately, and are discussed below. The following measures were screened from detailed study within each area:

Area One

- a) Restoration of riparian grassland: This measure was removed early in the plan formulation process due to the fact that this area in its native condition was not grassland habitat. In addition, it was determined by USACE, USFWS, and TPWD that restoring the bottomland hardwood riparian buffer along this section of creek could create more habitat units by connecting upstream and downstream sections and creating a continuous wildlife movement corridor.
- b) Removal of concrete-lined storm channel to decrease erosion: This measure was removed from further consideration due to the potential for increased flood damages. This channel is a “new build” by the City of San Antonio and drains flood waters from an upstream neighborhood.
- c) Riffle / pool modification: This measure was removed from further consideration due to the fact that the existing upstream portion of Olmos Creek is used primarily for flood water conveyance into Olmos Basin. Placement of pool / riffle structures in this section of Olmos Creek was deemed not feasible due to the likelihood that the high flows would wash out these structures during heavy rainfall events.

Area Two

- a) Restoring width / meander ratios: This measure was removed from further consideration due to the fact that this would not be compatible with current land use practices. The land in this reach is currently being used for recreational golfing. The golf course is owned and operated by the City of San Antonio, which has expressed a disinterest in making these types of modifications to the course.
- b) Construction / raising of new golf cart path bridges: This measure was removed from further consideration due to the fact that this would require demolition and construction of approximately eleven concrete crossings across this section of Olmos Creek. It was deemed not feasible due to excessive costs.

- c) Complete removal of existing Texas Department of Transportation (TXDOT) channel: This measure was removed early in the plan formulation process due to a lack of interest by TXDOT and the high costs that would be incurred if such a measure were implemented.

Area Three

- a) Restoring width / meander ratios: This measure was removed from further consideration due to the fact that Olmos Creek, between Jones-Maltsberger and Devine Road, is bordered by a limestone cliff on the east bank and large native trees on the west bank. Restoring width / meander ratios would require cutting into the limestone cliff and/or taking out many large native trees adjacent to the stream bank, which would likely require mitigation if implemented.

Area Four

- a) Restoring width / meander ratio: This reach of Olmos Creek is similar to Area Three in that the stream banks are bordered by large native trees. Restoring width / meander ratios would require cutting and/or removing many large native trees adjacent to the stream bank, which may require mitigation if implemented.

Area Five

- a) Creation of wetland cell: This measure was removed from further consideration due to surrounding land use hazards. This area is located off of the main channel and is situated between the Olmos Basin Skeet Range and Highway 281. The existing skeet range and highway traffic represent unacceptable hazards to migratory waterfowl species that would utilize the constructed wetland.

Measures used for Formulation of Alternatives

Area One

- a) Restoration of riparian corridor: Clearing of land within this reach has created large areas of open landscape where riparian woodlands once occurred. Reforestation with native trees and grasses could create a more natural riparian corridor to be utilized by local wildlife. Creation of riparian woodland habitat would require several actions. First, removal of invasive johnsongrass (*Sorghum halapense*) and giant ragweed (*Ambrosia trifida*) would need to occur. In addition, removal of existing debris would be required so that proper equipment could be used for plantings. The area would then need to be planted with ground cover (native grasses) and selected hard and soft mast producing trees. All scales would require the above actions for successful restoration. Scales for plantings are listed below:

Scale 1 – no action.

Scale 2 – 1” caliper plantings at 65 trees / acre of hard and soft mast producers; native grass seeding at 8 lbs. / acre.

Scale 3 – 100 seedlings / acre of hard and soft mast producers; native grass seeding at 8 lbs. / acre.

Scale 4 – 50 / 50 mix of 1” and seedlings at 83 trees / acre (41 – 1” caliper trees and 42 – seedlings / acre); native grass seeding at 8 lbs. / acre.

- b) Erosion control: Area One is experiencing bank erosion at the location where the concrete-lined storm drain empties into Olmos Creek. A flow baffle could be placed at the mouth of this channel to reduce flow velocities into Olmos Creek and in turn reduce bank erosion. This area could also be planted with live black willow (*Salix nigra*) stakes at the mouth of the storm channel and in the area experiencing erosion on the north bank of Olmos Creek to help reduce bank erosion.

Scale 1 – no action.

Scale 2 – flow baffles.

Scale 3 – live staking at 3 stakes / 4 square feet.

Area Two

- a) Restoration of riparian corridor: In general, Area Two is a well-manicured golf course with only small strips of native plant species occurring in-stream and within five feet from the banks of Olmos Creek. There are also remnant stands of trees that were not cleared when the golf course was built that lie between the fairways and in some of the out-of-bounds areas. Chinese tallow (*Triadica sebifera*) and chinaberry (*Melia azedarach*) were seen on the golf course but do not lie within the project study limits. We recommend that these species be removed from the golf course to remove potential seed sources. Because Area Two lies almost exclusively within the Olmos Basin Municipal Golf Course, creation of a continuous riparian corridor with large native trees was deemed not feasible due to interference with play on the course. To the extent possible, it was formulated that areas lying between fairways and those areas along the creek not in direct line of play could be planted with hard mast producing trees such as pecan and black walnut and soft mast producers such as bald cypress, cottonwood, and sycamore. Understory grasses could also be planted to increase the habitat diversity and availability within the golf course. These plantings are not to exceed a 50 feet (ft.) buffer limit set by the City of San Antonio Parks Department.

Scale 1 – no action.

Scale 2 – 1” caliper plantings at 65 trees / acre of hard and soft mast producers; native grass seeding at 8 lbs. / acre.

Scale 3 – 100 seedlings / acre of hard and soft mast producers; native grass seeding at 8 lbs. / acre.

Scale 4 – 50 / 50 mix of 1” and seedlings at 83 trees / acre (41 – 1” caliper trees and 42 – seedlings / acre); native grass seeding at 8 lbs. / acre.

- b) Erosion control: Area Two was identified as experiencing high levels of erosion, especially near the golf cart paths that cross Olmos Creek. To reduce the amount of sediment entering the stream and control the erosion, identified stream banks located upstream and downstream of the cart paths would be armored with rip-rap alone or rip-rap and supplemental live willow stake plantings.

Scale 1 – no action.

Scale 2 – 12”-24” rip-rap.

Scale 3 – 12”-24” rip-rap with live willow stakes at 3 stakes / 4 square feet.

- c) Creation of pilot channel: Downstream from the golf course is a large concrete-lined channel owned and operated by TXDOT. This channel was identified as having several degrading effects on the aquatic ecosystem of Olmos Creek. This channel was initially identified as being a barrier to up and downstream aquatic species movement, due to the fact that the

channel is extremely shallow under normal water flow conditions. In addition, the concrete-lined channel had little shading except for that provided by three bridges that cross the channel. This exposes the channel to high levels of solar radiation, causing an increase in stream water temperatures. By cutting a pilot channel into the existing concrete-lined channel, stream flow could be concentrated to create greater depths as water passes through the channel. This would allow aquatic species the ability to move up and downstream as well as reduce the stream temperatures during periods of bright sunshine and high temperatures.

Scale 1 – no action.

Scale 2 – 3' x 3' pilot channel.

Area Three

- a) Enhancement of riparian corridor: Area Three was characterized as having several problems relating to the existing riparian corridor. First, the entire area contained invasive and non-native plant species throughout the understory. Species included privet (*Ligustrum spp.*), chinaberry, and others. These plant species are considered detrimental to the health of the riparian corridor and should be removed. Second, the reach between Jones-Maltsberger Road and the first crossing of Devine Road was identified as having few hard mast producing trees, which limited food availability for species such as the fox squirrel. To correct this problem, open space would be created and planted with hard mast producing trees such as pecan and live oak. Open spaces would be created by: 1) removing the invasive and non-native plant species, and 2) thinning of the thick hackberry and cedar elm trees (approx. 0.5 acres) that dominate this section of Olmos Creek. In addition, existing debris would be removed so that proper equipment could be used for plantings. All scales would require the above steps for successful restoration. Scales for plantings are listed below:

Scale 1 – no action.

Scale 2 – 1" caliper plantings at 65 trees / acre of hard mast producers.

Scale 3 – 100 seedlings / acre of hard mast producers.

Scale 4 – 50 / 50 mix of 1" and seedlings at 83 trees / acre (41 – 1" caliper trees and 42 – seedlings / acre).

- b) Riffle / Pool Modification - Relocation / demolition of utility crossings: It was determined by USACE and USFWS that the main problem in the park area of Olmos Creek was the multiple pipeline and bridge crossings. There are currently three active pipelines, one abandoned pipeline, and one COSA Parks Department Bridge that cross within the park (approx. 2,500 ft.). These crossings are causing two problems: 1) blockage of aquatic species movements up and downstream from the park, and 2) the pool/riffle ratio is nearly four times that recommended by the USFWS (i.e., one to one). Demolition of the abandoned pipeline, relocation of up to three pipelines that are in use, and the demolition of the COSA Parks Department Bridge would reduce the pool/riffle ratio to a level closer to that recommended by USFWS. It was determined by USACE and USFWS that demolition of the abandoned pipeline alone would not increase the in-stream habitat value. However, since it is no longer in use, it should be removed and is included in all scales.

Scale 1 – no action.

Scale 2 – conversion of two 24" pipelines to inverted siphons.

Scale 3 – conversion of one 24" and one 48" pipelines to inverted siphons.

Scale 4 – conversion of two 24" and one 48" pipelines to inverted siphons.

Scale 5 – conversion of one 24” and one 48” pipelines to inverted siphons; demolition of COSA Parks Department Bridge.

Scale 6 – conversion of two 24” and one 48” pipelines to inverted siphons; demolition of COSA Parks Department Bridge.

- c) Park Area Restoration: Lastly, the area located between the first crossing and second crossing of Devine Road (within the park area) lacks a riparian buffer on the side of the creek where Olmos Basin Park is located. It was determined that the Bermuda grass that currently occupies this area could be removed using a herbicide treatment. This area could then be planted with understory shrubs and native grasses to create a riparian buffer on both sides of the creek. All scales would require the above measures for successful restoration. Scales for plantings are listed below:

Scale 1 – no action.

Scale 2 – 1-gallon shrubs at 20 shrubs / acre; native grass seeding at 8 lbs. acre.

Area Four

- a) Enhancement of riparian corridor: The riparian corridor within Area Four was characterized as having similar problems as those in Area Three. First, the entire area contained invasive and non-native plant species throughout the understory. Species included privet, chinaberry, and others. These plant species are considered detrimental to the overall health of the riparian corridor and should be removed. Second, the entire reach was identified as having few hard mast producing trees, which limited food availability for species such as the fox squirrel. To correct this problem, open space should be created and planted with hard mast producing trees such as pecan and live oak. Open spaces would be created by: 1) removing invasive and non-native plant species, and 2) thinning of the thick hackberry and cedar elm trees (approx. 1.0 acres) that dominate this section of Olmos Creek. In addition, existing debris would be removed so that proper equipment could be used for plantings. All scales would require the above steps for successful restoration. Scales for plantings are listed below:

Scale 1 – no action.

Scale 2 – 1” caliper plantings at 65 trees / acre of hard mast producers.

Scale 3 – 100 seedlings / acre of hard mast producers.

Scale 4 – 50 / 50 mix of 1” and seedlings at 83 trees / acre (41 – 1” caliper trees and 42 – seedlings / acre).

Area Five

- a) Restoration of Riparian Grassland: Clearing of lands within Area Five has left a large area of open space that has been colonized by native grasses and forbs as well as several species of invasive and non-native plant species such as johnsongrass and giant ragweed. In order to achieve restoration to a native grassland habitat, the area would first have to be wicked with a herbicide to remove the johnsongrass and giant ragweed. This would decrease the number of invasive and non-native plant species within the study area. Treatment would then be followed by planting (overseeding) a seed mix containing native grasses. This would serve to increase food and cover for many grassland bird species, mammals, and rodents. All scales would require the above steps for successful restoration. Scales for plantings are listed below:

Scale 1 – no action.

Scale 2 – overseeding with native grasses at 8 lbs. / acre.

INCREMENTAL COST ANALYSIS

Cost analysis techniques (Robinson et al., 1995) were used to determine the most cost effective restoration alternative in terms of incremental cost per habitat unit gained. All of the measures identified in the above section were evaluated using annualized habitat gains versus annualized cost estimates (including those for operation and maintenance). Annualized habitat unit gains for each solution, including the “no action” measure were computed for a 50-year period. This time period was established as the project life period, based on the period of time it would take for all aspects of the restoration to reach a level of maturity necessary to meet the goals of the project.

Typically, the cost analysis technique evaluates a particular restoration solution (e.g. reforestation) that may have a range of different size scenarios, which are referred to as scales. A solution is often evaluated with a range of other restoration solutions (e.g. erosion control) of various scales. Solutions in the cost analysis usually have relationships of dependency or exclusion with other solutions. An example of dependency would be a restoration alternative that specifies reforestation if, and only if, erosion control is implemented. Therefore, when the model is processed, if an erosion control solution other than the “no action” is deemed a cost effective alternative, the model will evaluate the various reforestation solutions. If the “no build” erosion control solution is deemed to be cost effective, the “no build” reforestation solution is automatically represented in the model. For purposes of this analysis, no relationships of dependency or exclusion were included.

The cost analysis model evaluates the multiple combinations of solutions to develop alternatives that are cost effective and incrementally justified (i.e., best buy alternatives). The alternatives analysis selected fifteen combinations of restoration measures that would be cost effective and incrementally justified. The following is a summary of the restoration measures identified in each of these alternatives. If a specific restoration measure is not listed, it means that the combination plan chose the “no action” or “no build” alternative for that measure.

Alternative 1. No action / future without project; land restrictions would not change, but due to the potential of creating a manicured landscape on City owned lands adjacent to Olmos Creek due to increased recreational needs and the high number of invasive and non-native plant species that are present, average annual habitat units (AAHU’s) would decrease over time from 56.87 to 28.56.

Alternative 2. Alternative 1 with native riparian grassland restoration located in Area Five. grassland restoration would involve the purchase of approx. 17.62 acres, two applications of herbicide for invasive control, and overseeding with native grasses at 8 lbs. / acre. This alternative would provide an additional 9.83 AAHU’s of grassland habitat over the project life period as compared to the “no action” alternative. However, AAHU’s would still decrease over the project life from 56.87 to 38.39.

Alternative 3. Alternative 2 with the addition of flow baffles for erosion control in Area One. The flow baffles would be located at the terminus of the storm channel to reduce flow velocities and erosion. This alternative would provide an additional 2.58 AAHU’s over the project life period as compared to Alternative 2. However, AAHU’s would still decrease over the project life from 56.87 to 40.97.

Alternative 4. Alternative 3 with the replacement of flow baffles with live willow stakes for erosion control in Area One. Live staking would occur on approximately 3,000 square feet near the terminus of the concrete-lined storm drain located in Area One. Staking would occur at three stakes per four square feet. Live staking provides benefits to the terrestrial environment as well as the aquatic environment. This alternative would provide an additional 2.33 AAHU's over the project life period as compared to Alternative 3. However, AAHU's would still decrease over the project life from 56.87 to 43.30.

Alternative 5. Alternative 4 with the restoration of the riparian corridor in Area Two (Olmos Municipal Golf Course). Restoration of the riparian corridor in Area Two would require the purchase of approximately 11.44 acres, drilling / overseeding of 6.5 acres with native grasses at 8 lbs. / acre, and planting of 6.5 acres of seedling hard and soft mast trees at 100 seedlings / acre. Alternative 5 would provide approximately 3.91 AAHU's over the project life as compared to Alternative 4. However, AAHU's would still decrease over the project life from 56.87 to 47.21.

Alternative 6. Alternative 5 with the restoration of the riparian corridor in Area Four. Restoration of the riparian corridor in Area Four would require the purchase of approximately 37.47 acres, removal of invasive and non-native plant species, selective thinning of 1.0 acre of cedar elm and hackberry trees, and planting of approximately 4.91 acres of seedling hard and soft mast producing trees at 100 trees / acre. This alternative would also involve removal of debris and trash in the area so that proper planting equipment can be utilized. Alternative 6 would provide an additional 18.66 AAHU's of riparian corridor habitat over the project life as compared to Alternative 5 and increase AAHU's over the project life from 56.87 to 65.87.

Alternative 7. Alternative 6 with the restoration of the riparian corridor in Area One. Restoration of the riparian corridor in Area One would require the purchase of approximately 18.53 acres, two applications of herbicide for invasive control, drilling / overseeding of 18.53 acres with native grasses at 8 lbs. / acre, and planting of 18.53 acres of seedling hard and soft mast trees at 100 seedlings / acre. This alternative would also involve removal of debris and trash in the area so that proper planting equipment can be utilized. Alternative 7 would provide an additional 8.86 AAHU's of riparian corridor habitat over the project life as compared to Alternative 6.

Alternative 8. Alternative 7 with replacement of seedling hard and soft mast producing trees at 100 / acre with 1" caliper trees at 65 / acre in Area Four. Restoration of the riparian corridor in Area Four would require the purchase of approximately 37.47 acres, removal of invasive and non-native plant species, selective thinning of 1.0 acre of cedar elm and hackberry trees, and planting of approximately 4.91 acres with 1" caliper hard and soft mast producing trees at 65 trees / acre. This alternative would also involve removal of debris and trash in the area so that proper planting equipment can be utilized. Alternative 8 would provide an additional 3.75 AAHU's of riparian corridor habitat over the project life as compared to the Alternative 7. Alternative 8 would increase AAHU's over the project life from 56.87 to 78.48.

Alternative 9. Alternative 8 with the addition of rip-rap and live willow stakes within Area Two (Olmos Municipal Golf Course). The addition of this measure would reduce the amount of erosion along the banks of Olmos Creek and reduce sedimentation downstream. This measure would require the purchase of approximately 2.107 acres, placement of approximately 288 cubic yards of rip-rap adjacent to the golf cart bridges, and planting of

1,635 live willow stakes at three stakes per four square feet. Alternative 9 would provide an additional 3.67 AAHU's over the project life as compared to Alternative 8.

Alternative 10. Alternative 9 with the restoration of Olmos Park within Area Three. Restoration of the park area would require the purchase of approximately 2.73 acres, one application of glyphosate to remove the Bermuda grass, drilling / overseeding of 2.73 acres with native grasses at 8 lbs. / acre, and planting of 1 gallon shrubs at 20 shrubs / acre. The addition of Alternative 10 would provide approximately 82.95 AAHU's over the project life.

Alternative 11. Alternative 10 with the restoration of the riparian corridor in Area Three. Restoration of the riparian corridor in Area Three would require the purchase of approximately 7.86 acres, removal of invasive and non-native plant species, selective thinning of 0.5 acre of cedar elm and hackberry trees, and planting of approximately 1.0 acre of 1" caliper hard and soft mast producing trees at 65 trees / acre. This alternative would also involve removal of debris and trash in the area so that proper planting equipment can be utilized. Alternative 11 would provide an additional 3.77 AAHU's of riparian corridor habitat over the project life as compared to Alternative 10. Alternative 11 would provide an overall gain in AAHU's over the project life from 56.87 to 86.72.

Alternative 12. Alternative 11 with the addition of 1" caliper plantings in Area One. This alternative involves essentially the same measures as the alternative above with the only difference being the size and rate of hard and soft mast producing trees to be planted in Area One. The addition of this measure would increase AAHU's from 56.87 to 88.54 over the project life.

Alternative 13. Alternative 12 with the addition of in-stream restoration involving the conversion of two 24" pipeline crossings to inverted siphons within Area Three. In-stream restoration within Area Three would involve the purchase of approximately 0.86 acres, demolition of an abandoned concrete encased utility line, and conversion of two 24" pipeline crossings to inverted siphons. The addition of this measure would increase AAHU's from 56.87 to 89.65 over the project life.

Alternative 14. Alternative 13 with the addition of 1" caliper plantings in Area Two. This alternative involves essentially the same measures as Alternative 5 above with the only difference being the size and rate of hard and soft mast producing trees to be planted in Area Two. The addition of this measure would increase AAHU's from 56.87 to 90.00 over the project life.

Alternative 15. Alternative 14 with additional in-stream restoration involving the creation of a pilot channel in Area Two through the TXDOT concrete-lined channel. In-stream restoration within Area Two would involve the purchase of approximately 1.05 acres and the creation of a 3' x 3' pilot channel through a 912' section of concrete-lined channel owned and operated by TXDOT. The addition of this measure would increase AAHU's from 56.87 to 90.03 over the project life.

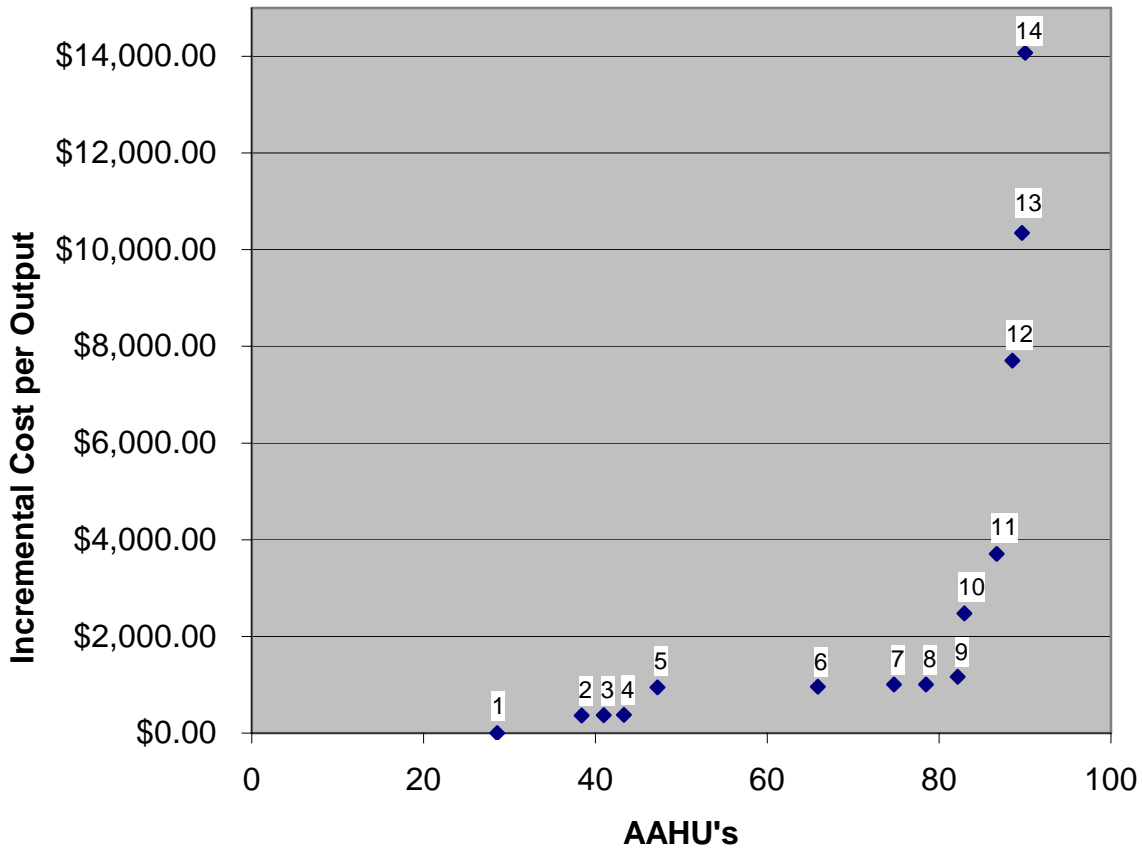
As shown above, fifteen different "best buy" alternatives were identified using the Cost Analysis Techniques for this study. **Table 7** identifies the AAHU's, incremental AAHU's annualized costs, incremental annualized costs, average cost per AAHU, and incremental cost per output for each of the fifteen incrementally justified or best buy alternatives. **Figure 5** is a graphic representation showing the AAHU's and incremental cost per output for all of the best buy alternatives. Alternative 15 is not identified in Figure 8 as a result of its high Incremental Cost per Unit Output (\$1,012,167). Removing

this value from the graph allows for a more accurate graphical representation of the Incremental Costs per Output versus Annual Habitat Units.

Table 7 – Incremental Cost Analysis of Best Buy Alternatives

Best Buy Alternative	AAHU's	Incremental AAHU's	Annualized Costs	Incremental Annualized Costs	Average Cost per AAHU	Incremental Cost per Output
1	28.56	28.56	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
2	38.39	9.83	\$ 3,600.00	\$ 3,600.00	\$ 93.80	\$ 366.22
3	40.97	2.58	\$ 4,550.00	\$ 9,490.00	\$ 111.00	\$ 367.82
4	43.30	2.33	\$ 5,440.00	\$ 8,860.00	\$ 125.50	\$ 380.26
5	47.21	3.91	\$ 9,140.00	\$ 3,701.00	\$ 193.50	\$ 946.55
6	65.87	18.66	\$ 27,010.00	\$ 17,871.00	\$ 410.00	\$ 957.72
7	74.73	8.86	\$ 35,920.00	\$ 8,915.00	\$ 480.70	\$ 1,006.21
8	78.48	3.75	\$ 39,710.00	\$ 3,783.00	\$ 505.90	\$ 1,008.80
9	82.15	3.67	\$ 43,980.00	\$ 4,272.00	\$ 535.30	\$ 1,164.03
10	82.95	0.80	\$ 45,960.00	\$ 1,981.00	\$ 554.00	\$ 2,476.25
11	86.72	3.77	\$ 59,940.00	\$ 13,979.00	\$ 691.20	\$ 3,707.96
12	88.54	1.82	\$ 73,970.00	\$ 14,028.00	\$ 835.40	\$ 7,707.69
13	89.65	1.11	\$ 85,450.00	\$ 11,487.00	\$ 953.20	\$ 10,348.65
14	90.00	0.35	\$ 90,380.00	\$ 4,925.00	\$ 1,004.20	\$ 14,071.43
15	90.03	0.03	\$ 120,740.00	\$ 30,365.00	\$ 1,341.10	\$ 1,012,167.00

Figure 5 - Incremental Cost per Output versus AAHU



RECOMMENDED RESTORATION ALTERNATIVE*

The recommended restoration alternative was designed to enhance and restore existing wildlife habitat through a combination of measures directed at both aquatic and terrestrial habitat types. The study team determined that **Alternative 11**, as identified above, should be the National Ecosystem Restoration (NER), or recommended plan alternative based on the AAHU gained per annualized unit cost. In addition, Alternative 11 was the most cost effective plan that met all the study objectives as outlined in the Plan Formulation section above. Alternative 11 increases the AAHU's from 56.87 to 86.72, resulting in a gain of approximately 30 AAHU's. Of even greater importance is the fact that Alternative 11 would create a continuous riparian corridor extending the length of the study area. This continuous corridor would provide passage from San Pedro Avenue to below Olmos Dam for species such as migrating neo-tropical birds as well as other terrestrial species within the area. Birds, in particular neo-tropical migrants, utilize these areas as stop over points during long migrations to either nesting areas to the north or wintering areas in Central and South America. Riparian corridors connect other habitats and provide a food source and resting area for these species. Riparian forests provide havens for a multitude of insects that migratory songbirds rely on during migration. Since these habitats are diminishing and were not very common to start with in this part of the country, they are very significant to the survival of numerous birds (USFWS Letter, 2004). In addition, the corridor would provide much needed shade to Olmos Creek and the vegetation would help to prevent erosion. A detailed description of the recommended alternative is located below. Diagrams of specific measures are included in **Appendix D**.

Area One

The recommended alternative proposes the restoration of the riparian corridor between San Pedro and McCullough Avenues in Area One. Total riparian corridor restoration would be approximately 18.53 acres and in-stream restoration would be approximately 0.93 acres. The riparian corridor width would range between 50 and 300 ft. from the stream bank on both sides of Olmos Creek.

Riparian corridor restoration would involve the removal of invasive johnsongrass and giant ragweed. This would be accomplished through two glyphosate herbicide applications (wicking). In addition, debris and trash would be removed so that proper equipment could be used for plantings. The area would then be planted with a native grass mix at a rate of 8 lbs. / acre. Grass species such as little bluestem (*Schizachyrium scoparium*), big bluestem (*Andropogon gerardii*), Indiangrass (*Sorghastrum nutans*), Canada wildrye (*Elymus canadensis*), switchgrass (*Panicum virgatum*), and blue grama (*Bouteloua gracilis*) are examples that could be included in the mix. Reforestation with hard and soft mast trees would follow at a rate of 100 seedlings / acre. Examples of tree species that could be planted in areas that are more frequently inundated by the creek (within 0 – 15 ft. of the stream bank) include black willow, bald cypress (*Taxodium distichum*), pecan (*Carya illinoensis*), American sycamore (*Platanus occidentalis*), and eastern cottonwood (*Populus deltoides*). In those areas that are less frequently flooded (within 15 – 300 ft. of the stream bank) species such as escarpment live oak (*Quercus fusiformis*), bur oak (*Quercus macrocarpa*), pecan, and Texas persimmon (*Diospyros texana*) could be planted.

In-stream restoration in Area One involves reduction in erosion at the point where the concrete-lined storm channel enters Olmos Creek. Erosion control would be accomplished with the use of live black willow stakes planted at a rate of three stakes per four square ft. Approximately 3,000 square ft. would need to be planted.

Area Two

The recommended alternative proposes the restoration of the riparian corridor and in-stream restoration within Area Two (Olmos Municipal Golf Course). Total riparian corridor restoration would be approximately 6.5 acres and in-stream restoration would be approximately 2.1 acres. The riparian corridor width would extend 50 ft. from the stream bank on both sides of Olmos Creek. The amount of riparian corridor restoration is limited in this area due to the constraints associated with being located within the golf course. Riparian corridor plantings would not be located in fairway areas.

Riparian corridor restoration would involve the planting of a native grass mix at a rate of 8 lbs. / acre. Grass species such as little bluestem, big bluestem, Indiangrass, Canada wildrye, switchgrass, and blue grama are examples that could be included in the mix. Reforestation with hard and soft mast trees would follow at a rate of 100 seedlings / acre. Examples of tree species that could be planted in this area include black willow, bald cypress, pecan, American sycamore, and eastern cottonwood.

In-stream restoration in Area would involve reduction in erosion at the multiple golf cart path bridges that cross the creek in this reach. Erosion control would be accomplished with the use of 12-24" rip-rap accompanied by live black willow stakes planted at a rate of three stakes per four square ft. Approximately 288 cubic yards of rip-rap along with 2,200 square ft. of live black willow stakes would be needed for bank stabilization near the cart path bridges.

Area Three

The recommended alternative proposes the restoration of the riparian corridor between Basse Road and the second crossing of Devine Road in Area Three. Total riparian corridor restoration would be approximately 6.91 acres. The corridor width would extend 50 ft. from the stream bank on both sides of Olmos Creek.

Riparian corridor restoration within Area Three can be divided into two separate sections. The first section extends 50 ft. in width from the bank on both sides of the creek between Basse Road and the first crossing of Devine Road and includes 50 ft. on the south side of Olmos Creek between the first and second crossings of Devine Road. Restoration in this section would include removal of invasive and non-native plant species such as *Ligustrum spp.*, Chinaberry, and Chinese tallow tree. This would be accomplished by utilizing a cut-stump method and applying an herbicide such as picloram. Approximately 0.5 acres of thick tree canopy (mainly hackberry (*Celtis laevigata*) and cedar elm (*Ulmus crassifolia*)) would also need to be selectively thinned within this reach so that plantings of hard mast producing trees could occur. Plantings with hard mast trees (approx. one acre) would follow at a rate of 65 – 1” caliper trees / acre. Examples of tree species that could be planted in this area include native pecan, black walnut (*Juglans nigra*), escarpment live oak, and bur oak. In addition, existing debris and trash would be removed so that proper equipment could be used for plantings.

The second riparian corridor section extends 50 ft. in width from the stream bank on the north side of Olmos Creek between the first and second crossings of Devine Road and contains approximately 2.73 acres. This section is contained entirely within the Olmos Basin Park, where the riparian corridor can be described as parkland with large hard mast trees that are widely spaced and a groundcover consisting primarily of Bermuda grass. Restoration in this section would require an initial application of a glyphosate herbicide to control the Bermuda grass. Following the herbicide application, the area would be planted with a native grass mix containing species such as little bluestem, big bluestem, Indiangrass, Canada wildrye, switchgrass, and blue grama at a planting rate of 8 lbs. / acre. In addition, one-gallon size shrub species such as coralberry (*Symphoricarpos orbiculatus*), possumhaw (*Ilex decidua*), yaupon (*Ilex vomitoria*), and American beautyberry (*Callicarpa americana*) would be planted at 20 shrubs / acre.

Area Four

The recommended alternative proposes the restoration of the riparian corridor between the second crossing of Devine Road and Olmos Dam in Area Four. Total riparian corridor restoration would be approximately 37.47 acres. The riparian corridor would range from 50 to 300 ft. in width from the stream bank according to adjacent land practices within this area.

Riparian corridor restoration in Area Four would include removal of invasive and non-native plant species such as *Ligustrum spp.*, Chinaberry, and Chinese tallow tree. This would be accomplished by utilizing a cut-stump method and application of an herbicide such as picloram. Selective thinning of approximately 1.0 acre (mainly hackberry and cedar elm trees) would also be needed to “open” the thick tree canopy so that plantings of hard mast producing trees could occur within this reach. Plantings with hard mast trees (approx. 4.91 acres) would follow at a rate of 65 – 1” caliper trees / acre. Examples of tree species that could be planted in this area include native pecan, black walnut, escarpment live oak, and bur oak. In addition, existing debris would be removed so that proper equipment could be used for plantings.

Area Five

The recommended alternative proposes that Area Five, located west of Hwy. 281 and south of Basse Road, be restored to a native riparian grassland habitat. The restoration of native riparian grassland would occur on approximately 17.62 acres.

Native riparian grassland restoration would involve the removal of invasive johnsongrass and giant ragweed. This would be accomplished through two glyphosate herbicide applications (wicking). The area would then be planted with a native grass mix at a rate of 8 lbs. / acre. Grass species such as little bluestem, big bluestem, Indiangrass, Canada wildrye, switchgrass, and blue grama are examples that could be included in the mix.

Importance of Project Outputs

The recommended alternative was designed with the specific intent of improving and restoring wildlife habitat. Approximately 58 average annual habitat units would be gained in comparison to the “no action” alternative, which considered natural succession, and future land uses (**Table 8**).

Table 8 – Future With and Future Without Project Average Annual Habitat Units

Habitat Types	Future W/O AAHU's	Future With AAHU's	Difference Between With and W/O
Riparian Woodland (Area 1)	4.46	13.32	8.86
Aquatics (Area 1)	0.31	5.22	4.91
Riparian Woodland (Area 2)	0.00	3.91	3.91
Aquatics (Area 2)	0.71	4.38	3.67
Riparian Woodland (Area 3)	4.88	9.45	4.57
Aquatics (Area 3)	0.82	0.82	0.00
Riparian Woodland (Area 4)	11.65	34.06	22.41
Riparian Grassland (Area 5)	5.73	15.56	9.83
Total:	28.56	86.72	58.16

The project as proposed would result in the restoration of approximately 73 acres of riparian / bottomland hardwood habitat with mast producing trees, shrubs, and grass species. The bottomland hardwood ecosystem in Texas prior to European settlement once extended over 6.5 million hectares; it is estimated that less than 40% of this original extent still remains (Frye, 1986), with only a few small and isolated patches of old growth scattered amongst the floodplains of the eastern third of the state. Losses of intact bottomland hardwoods in the past 50 years have at times been greater than 120,000 ha per year (Barry and Knoll, 1999). Bottomland hardwoods extend west of Bexar County Texas and are the most western extent of this habitat in the continental United States (Mitsch and Gosselink, 1993), making them a significant natural resource to restore. The decreased fragmentation of the riparian habitat would also provide better corridors for wildlife migration, primarily for fall and spring migrants such as neotropical songbirds. Neo-tropical migrants utilize these areas as stop over points during long migrations to either nesting areas to the north or wintering areas in Central and South America. Since these habitats are diminishing, and were not very common to start with in this part of the country, they are very significant to the survival of numerous birds (USFWS Letter, 2004).

The proposed restoration in Area 5 would result in the restoration of approximately 17 acres of riparian grassland habitat. Native grassland has probably been degraded more than any other habitat type in Texas. The U.S. Biological Service claims a 99% loss of native grassland habitat due to introduced grasses, over-grazing, urban development, and lack of fire (Noss et al., 1995), making this habitat a very significant natural resource to restore. The elimination of abundant lower quality vegetation such as johnsongrass and giant ragweed would allow for native grasses and forbs to become established, promoting optimum habitat conditions. In addition, the native grassland would also serve to diversify the habitat types located within Olmos Basin that in turn would increase wildlife diversity and improve aquatic habitat conditions.

The recommended alternative was also intended to improve the aquatic habitat of Olmos Creek. By implementing erosion control measures in Areas One and Two, erosion and subsequent deposition of

sediment downstream would be reduced. This would help to maintain and restore natural substrate conditions for approximately 5.8 acres within Olmos Creek. Turbidity and temperature are two water quality parameters that could be reduced following implementation of riparian corridor and in-stream habitat restoration measures. As the restored riparian corridor matures, several benefits to in-stream habitat would likely occur: 1) increased stream shading would help moderate high stream temperatures, 2) inputs of large woody debris would gradually increase and help capture sediments, increase stream bottom heterogeneity, and provide habitat for aquatic organisms, and 3) bank stabilization efforts would reduce erosion, water turbidity and subsequent sedimentation, which would improve water clarity in Olmos Creek. Aquatic organisms like macroinvertebrates and fish are known to be excellent indicators of water quality (Barbour et al., 1999, Curry and Hall, 2003, and Karr, 1981). Improvement in water quality should ultimately increase species diversity with Olmos Creek by providing more suitable habitat conditions for a wider variety of intolerant aquatic organisms.

Implementation of the ecosystem restoration project would also provide a variety of benefits to the participating stakeholder. In urban areas, opportunities to enjoy the aesthetic values of wooded riparian areas diminish as the urban areas grow. Restoration of Olmos Creek would provide unique opportunities to the non-federal sponsor and general public through environmental education, wildlife viewing and photography, and open space enjoyment. Property located adjacent to the restored property would also likely increase in value with the proposed restoration project.

Project Costs of the Recommended Alternative

Table 9 displays a summary of the construction costs for the recommended restoration alternative. **Table 10** displays the estimated total project costs, comprised of all expenditures related to the PDR / EA, land acquisition, and construction. The total project cost of the recommended alternative using August 2004 prices was estimated at \$1,102,559.

Construction costs were updated using the Civil Works Construction Cost Index System (CWCCIS), revised 30 September 2006, EM1110-2-1304. A conversion factor of 1.0909 was calculated from the index values for Fish and Wildlife Facilities for 4th Qtr FY 2004 (Calendar Year July-September 2004) and 1st Qtr. FY 2007 (Calendar Year October-December 2006) as follows $639.89/586.56=1.0909$. The total construction cost using updated November 2006 construction prices is \$351,396. In addition, the real estate plan was updated to November 2006 prices and the new cost of the real estate is \$519,431, which would bring the new project total to \$1,162,077.

Table 9 - Summary of Estimated Construction Costs (August 2004 Prices)

Item	Construction Costs
Direct Costs:	
<i>Area One</i>	
- riparian corridor restoration	\$28,595
- erosion control (live stakes)	\$17,578
<i>Area Two</i>	
- riparian corridor restoration	\$18,856
- erosion control (rip-rap / live stakes)	\$23,183
<i>Area Three</i>	
- riparian corridor restoration	\$20,779
- shrub plantings	\$2,927
<i>Area Four</i>	
- riparian corridor restoration	\$109,042
<i>Area Five</i>	
- native riparian grassland restoration	\$5,246
Sub-total Direct Costs	\$226,206
Indirect Costs:	
- Access, entry, etc. (7.4%)	\$16,739
- Field and Home Office Overhead (24%)	\$54,289
- Profit (10.3%)	\$23,299
- Bond (0.7%)	\$1,583
Total Construction Costs	\$322,116
Total Construction Costs November 2006 Prices	\$351,396

Table 10 - Summary of Estimated Project Costs (November 2006 Prices)

Item	Costs
Planning Design Report (includes plans and specs)	\$ 289,000
Construction – Ecosystem Restoration	\$ 351,396
Lands, Easements, Rights-of-Way, Relocations, Disposal Areas (LERRD)	\$ 519,431
Post Project Monitoring and Habitat Assessment	\$ 2,250
Total:	\$ 1,162,077
Long-term Operation and Management (annual)	\$ 22,677

ENVIRONMENTAL EFFECTS*

A discussion of the environmental effects of the “no action” and recommended alternative is covered below. The environmental effects, except for habitat improvements, were not utilized in selecting the recommended alternative. As such, a detailed analysis and discussion of the environmental effects for each alternative was not included. However, it was determined that the environmental effects of the other restoration alternatives would be very similar to those of the recommended alternative.

Natural Regions, Geology, and Soils

No Action Alternative

The “no action” alternative would have no significant impacts to natural regions, geology, or soils within the study area.

Recommended Alternative

The recommended alternative would utilize the qualities of existing soils to develop forested and grassland habitats in the Olmos Creek Study Area. The reforestation would be accomplished through commercial forestry techniques, which would minimize soil disturbance. The grassland restoration would result in minor soil disturbance. Disturbance is expected to be minimal since over-seeding would be the method of choice for planting native grasses. Approximately 2,000 square feet of soil would be disturbed within the Olmos Municipal Golf Course adjacent to the golf cart path bridges where slight earth work is expected to occur for placement of rip-rap and reinforcement with live willow stakes. Best management practices (BMP’s) would be implemented to prevent the pollution of storm water into adjacent aquatic resources during project construction activities. A number of BMP’s for erosion and sedimentation control could be implemented for the project including, but not limited to: 1) temporary seeding of disturbed areas, 2) seeding or hydromulching on erosion susceptible slopes, 3) establishing temporary sediment barriers consisting of a row of entrenched and anchored straw bales, and 4) construction of entrenched and staked filter fabric silt fences. It is anticipated that implementation of the proposed project would not have impacts to soils.

Hydrology

No Action Alternative

The “no action” alternative would have no significant impacts to the hydrology within the study area.

Recommended Alternative

Hydrologic Impacts of Proposed Project - The currently proposed Section 206 project would not significantly alter flooding conditions either upstream, downstream, or within the project reach. This is due to the fact that: 1) the proposal involves simply the enhancement of wildlife habitat via application of additional grass, shrub, and tree plantings; and 2) the project site is situated within the flood pooling area of the Olmos Reservoir. Impacts should be generally limited to low flow (i.e. non-flooding) conditions, where the enhanced vegetation would serve to buffer the existing channel bottom and banks from potential scour.

Waters of the United States

No Action Alternative

Under the “no action” alternative, it is anticipated that areas within Olmos Creek would continue to erode and sedimentation increase over time. However, the “no action” alternative would have no significant impacts to the hydrology within the study area.

Recommended Alternative

The recommended erosion control measures within the Olmos Municipal Golf Course could result in minor modifications to existing waters of the United States, including wetlands, as regulated by Section 404 of the Clean Water Act. Modifications include minimal fill in waters of the United States during landscape leveling and grading activities for placement of rip-rap reinforced with live stakes. Some of these areas are located at or below the normal high water mark. The proposed project appears to meet the criteria for Nationwide Permit (NWP) 13 - *Bank Stabilization*, which authorizes activities in waters of the United States associated with stabilization of stream banks. No channelization would be required during project construction. The TCEQ has issued a Section 401 water quality certificate for all NWP’s and no further coordination is required if NWP 13 is used and certain BMP’s are implemented.

Surface Water

No Action Alternative

The “no action” alternative would have no significant impacts to the surface water within the study area.

Recommended Alternative

The recommended expansion of the riparian corridor would help diffuse surface water runoff and filter pollutants from local stormwater runoff, thereby improving the aquatic system in terms of water quality in Olmos Creek over the life of the project. No negative effects to surface water are anticipated with the implementation of the recommended alternative.

Fish and Wildlife Habitat

No Action Alternative

Under the no action alternative, the fish and wildlife habitat within the study area is expected to continue to degrade over time. This expected degradation was attributed to continued urban growth and development in the region. However, the “no action” alternative would have no significant impacts to the fish and wildlife habitat within the study area.

Recommended Alternative

Although temporary impacts to vegetation would be expected during project construction, the contribution to the vegetative community in terms of increased species and structural diversity would be significant over the life of the project. Increased vegetative diversity correlates to increased spatial heterogeneity, which increases the ability of a habitat type to accommodate the life requirements (e.g. food and cover) of a wider range of wildlife species. Temporary disturbance and displacement of resident wildlife would be expected during project construction; however, it is anticipated that wildlife would move back into the area once construction is complete.

Endangered or Threatened Species

No Action Alternative

The “no action” alternative would have no significant impacts to endangered or threatened species within the study area.

Recommended Alternative

The recommended alternative has been reviewed by the USFWS and it has been determined that the recommended alternative would not adversely affect state or federally-listed threatened or endangered species. A copy of the USFWS correspondence is attached in **Appendix A**.

Recreational, Scenic, and Aesthetic Resources

No Action Alternative

The “no action” alternative would have no significant impacts to recreational, scenic, or aesthetic resources within the study area.

Recommended Alternative

The recommended alternative would have no adverse impacts on the recreational, scenic, and aesthetic resources in the area; rather, it is anticipated that over the life of the project, the proposed project features would have positive long-term effects. Impacts to scenic resources would be minimal during project construction and would be temporary in nature. Of the proposed restoration plantings, the grasses, trees, and shrubs would become relatively quickly established and attractive to view. Eventually, seedling plantings would mature enough to provide additional aesthetic value to the study area. It is anticipated that the proposed riparian grassland would become quickly established and functional, thereby providing additional scenic and aesthetic qualities to the area.

Cultural Resources

No Action Alternative

The “no action” alternative would have no significant impacts to cultural resources within the study area.

Recommended Alternative

The archaeological records investigation concluded that activities for the proposed riparian corridor and grassland restoration activities have the potential to affect previously recorded cultural resources, as well as resources not yet identified. The Texas Historical Commission (THC) has been notified of the proposed project and has agreed that a cultural resources survey is necessary before ground disturbing activities begin. A copy of the correspondence to the THC is attached in **Appendix A**. The survey and its findings will be coordinated with the THC and determinations of effects to Historic Properties, if any, will be made in concurrence with the Commission. All National Register of Historic Places eligible properties will be mitigated in consultation with the THC prior to construction of the proposed project. If, after the cultural resources investigations are completed, construction unexpectedly uncovers cultural deposits, work would cease immediately in the area and the USACE, Fort Worth District and the THC would be notified of the discovery without delay.

Hazardous Materials

No Action Alternative

The “no action” alternative would have no significant impacts to hazardous materials within the study area.

Recommended Alternative

The results of the hazardous materials review indicate that it is unlikely that any of the recognized environmental conditions would pose an HTRW threat to the project. However, if excavation is considered at any of the sites of concern, environmental conditions may exist that could pose a problem. It would then be necessary to, at a minimum, conduct an HTRW site survey to determine if feasible pathways exist between the recognized environmental conditions and places of planned excavation. Additionally, soil and water sampling may be needed.

Floodplains

No Action Alternative

The “no action” alternative would have no significant impacts to floodplains within the study area.

Recommended Alternative

Executive Order 11988 has an objective to avoid, to the extent possible, long and short-term adverse impacts associated with occupancy and modification of the base floodplain. Further objectives are the avoidance of direct and indirect support of development in the base floodplain wherever there is a practicable alternative and protection and restoration of natural floodplain functions. U.S. Army Corps of Engineers regulations for implementing EO 11988 (ER 1165-2-26) defines the base floodplain as the one percent chance, or 100-year floodplain.

The recommended alternative would have no long or short term adverse impacts associated with occupancy or modification of the base floodplain. Further, the recommended alternative does not support, directly or indirectly, development in the base floodplain. However, the recommended alternative does act to protect and restore the function of the natural floodplain.

Air Quality

No Action Alternative

The “no action” alternative would have no significant impacts to air quality within the study area.

Recommended Alternative

It is anticipated that the recommended alternative would have no significant impacts to air quality within the study area. Minor impacts, such as suspension of dust particles during construction may occur, but are expected to be minor and temporary in nature.

CUMULATIVE EFFECTS

In 1997, the Council on Environmental Quality (CEQ) developed a handbook that contained guidelines for addressing cumulative impacts in analyses prepared under the National Environmental Policy Act. The assessment of cumulative impacts is addressed in NEPA by its reference to interrelations of all components of the natural environment. The CEQ defined cumulative impacts as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such actions. The term "reasonably foreseeable" implies that the project may only have a general public knowledge or acceptance at a point in time and that details of design and project specific

impacts are yet to be developed or disclosed by the project proponent. This cumulative impacts analysis uses the level of information available at the time this PDR/EA report was prepared to describe these other projects and their respective potential impacts on the environment.

Numerous flood damage reduction, channelization, transportation, and recreation projects, along with general urbanization of the area has resulted in significant alterations to the historical condition of the San Antonio River Basin and within the Olmos Creek vicinity. Historical information related to the impacts of these past projects is unavailable and unattainable. Therefore, this cumulative impacts analysis considered the existing conditions to be a result of the past and present projects that have occurred in the study area and serves as a baseline to address impacts of the reasonably foreseeable projects.

Identification of Reasonably Foreseeable Projects

To assess the cumulative impacts on the resources within the Olmos Creek study area, the reasonably foreseeable projects of others that could, in concert with the Recommended Plan described above, contribute to cumulative impacts were identified. Several methods were used to identify these projects including informal verbal requests, literature reviews, and Internet searches from agencies and organizations that have information on proposed activities that could occur in the study area. Below is a list of those identified projects along with a brief description.

San Antonio Channel Improvement Project (SACIP) Mission Reach Ecosystem Restoration and Recreation, San Antonio River, San Antonio, Texas. In the late 1950s, construction of the SACIP began with the sole purpose of flood damage reduction. Section 335 of the Water Resources Development Act of 2000 provided authorization for the U.S. Army Corps of Engineers (USACE) to investigate opportunities to include ecosystem restoration and recreation as project purposes for the SACIP. In 2001, the San Antonio River Authority (SARA), serving as the local sponsor, partnered with the USACE to conduct a feasibility study. The investigations and recommended plan resulting from this study are documented in the *San Antonio River, San Antonio, Texas, Channel Improvement Project Ecosystem Restoration and Recreation General Reevaluation Report and Integrated Environmental Assessment*, dated February 2004.

The Mission Reach extends approximately from the Lone Star Boulevard Bridge (just downstream of the San Antonio River tunnel outlet) to approximately 3,800 feet downstream of Interstate Highway 410 in the southern part of Bexar County; a distance of approximately 8 miles.

A recommended plan was identified which provides aquatic and riparian restoration features to approximately 434 acres of the San Antonio River and associated riparian corridor while maintaining the existing level of flood protection provided by the SACIP. Restoration measures identified include a series of pools, riffles, and chutes, restored river remnants, embayments, tributary mouths, wetland and riparian vegetation. These restoration features are to be restored and sustained by: a pilot channel; a series of riffle structures; weirs; modification to the existing San Juan Dam; utility, storm water outfall, road sidewalk, and parking lot relocations; bridge modifications; channel invert erosion protection; channel slope and over-bank erosion projection; and planting native riparian vegetation. The project will include recreation features such as a multi-use concrete trail, shade shelters, day use facilities, lighting and directional and interpretive signage.

The project is currently in the Pre-construction, engineering, and design (PED) phase. Construction of the first components is anticipated to begin in late 2007, and all construction is expected to be complete by the end of 2011.

Eagleland Habitat Restoration, San Antonio, Texas - Section 1135 of the Water Resources Development Act of 1986, as amended. The Eagleland Habitat Restoration Project is located within

San Antonio, Texas along the channelized portion of the San Antonio Channel Improvement Project from the Alamo Street Dam downstream to Lone Star Boulevard Bridge at the San Antonio River Tunnel Outlet. Clearing of the floodway and channel realignment destroyed the vast majority of the high quality riparian habitat. The project will restore a three-quarter mile section of the San Antonio River, and will relocate the existing base flow channel to meander primarily along the outside of existing bends. The inside slopes will be lowered and softened where adequate area is available within the larger flood control channel. Native species of grasses and trees will be planted along the channel side slopes, the top of bank, and within the flood control channel to the extent practicable. As flood capacity permits, trees will be brought down toward the river's edge along the outside meander bends to enhance riparian habitat development. A rock riffle structure will be constructed in the base flow channel to create a riffle-pool complex. In addition, tributary and stormwater outfall structures and weirs will be 'naturalized' through the use of native stone and wetland plantings. The project has an estimated total project cost of about \$1.8 million. A construction contract was awarded in September 2003, and construction initiated in January 2004.

San Antonio Channel Improvement Project, PL 84-99 Project Information Report (February 2003). During late June and early July 2003, the watersheds of the headwater tributaries of the San Antonio River, including Olmos Creek and San Pedro Creek, were at the epicenter of severe thunderstorms. The San Antonio River Authority (SARA) requested assistance repairing four sites within the San Antonio Channel Improvement Project, and an additional 26 sites on behalf of the City of San Antonio, damaged by erosion and bank failure. Three of the four sites (SARA) and six of the 26 (city of San Antonio) fall within the Mission Reach for the ongoing GRR, and therefore were not included in the report and repair recommendation. The damaged areas are located along Alazan, Martinez, Apache, and San Pedro Creeks, and the San Antonio River. Rebuilding the channel slopes with compacted fill and reestablishing turf was selected as the recommended plan. The total annual benefits for the entire project are estimated at \$7,100,000. The first cost to repair all the sites was estimated at \$2,203,500, having a total annual cost of \$190,200. The benefit-cost ratios of the tributaries and river range from 15.0 to 114.0, hence all are economically justified. The report recommended the repairs be approved for implementation. Construction began in March 2004 and is expected to be complete in February 2006.

San Antonio River, Federal Emergency Management Agency (FEMA), Limited Map Maintenance Program. The work involves hydrologic and hydraulic analysis of the San Antonio River, from approximately 4000 feet upstream of Hildebrand Avenue to downstream of IH 410, and San Pedro Creek from the upstream end at Myrtle Street downstream to its confluence with the San Antonio River. The analysis incorporates the San Antonio River Tunnel and the San Pedro Creek Tunnel projects. Digital mapping for the 100-year and 500-year floodplain boundaries will be developed and incorporated as Flood Insurance Rate Maps. A Technical Notebook, documenting the technical aspects of the analysis will also be completed. The analyses began in February 2001, and are a joint effort between the Fort Worth District, the city of San Antonio, the San Antonio River Authority, and their contractors. Mapping for this program was completed in 2004 and is currently being reviewed by FEMA.

Guadalupe and San Antonio River Basins, Cibolo Creek Interim Feasibility Study. Alternating cycles of drought and flooding combined with population growth within the Guadalupe and San Antonio River basin have resulted in loss of life, extensive property damage, and severely degraded ecosystems. Recent flood events within the region accounted for at least 31 deaths, and caused damages estimated to be \$300 million. Land use changes, drought and urbanization has impaired surface and ground water resulting in degraded ecosystems. Preliminary data show high potential for restoration of ecosystems dependent on the Edward's Aquifer and significant flood damage reduction

potential along the Cibolo Creek in the communities of Shertz and Selma. A feasibility study was initiated in 2002; the completion date is expected during 2008.

Guadalupe and San Antonio River Basins, Salado Creek Interim Feasibility Study, and Leon Creek Interim Feasibility Study. During a flooding event in 1998, an estimated 17 inches of rainfall was recorded within a 30-hour period. The devastation from that flood event resulted in 25 deaths, and 1,150 homes or businesses damaged or destroyed in the city of San Antonio, with significant damage occurring along the Leon Creek Watershed. Flood damages were estimated at \$500 million in the city of San Antonio and the surrounding county area. During a July 2002 flood event, the San Antonio region received an estimated 16 inches of rainfall in six days resulting in 8 deaths, 280 homes damaged, and \$8.9 million in estimated infrastructure damage. The study is part of a feasibility study of the Guadalupe and San Antonio River Basins. Urban growth within the watershed has resulted in environmental degradation and increased flooding frequency. The study will investigate the Leon Creek Watershed to address improvements in the interest of flood damage reduction, ecosystem restoration, water quality, water supply, recreation and other allied purposes. The Leon Creek study was initiated in 2004 and has an anticipated completion date in 2009. The Salado Creek study is expected to begin in October of 2005 and has an anticipated completion date of 2011.

Guadalupe and San Antonio River Basins, Lower San Antonio River Basin Interim Feasibility Study. Flooding within various portions of the Guadalupe and San Antonio River basins was severe in 1972 and in 1978, when portions of them were declared disaster areas. Flooding again plagued the area in 1997, with total damages estimated at \$1.9 million. In October 1998 a large flood event accounted for at least 31 deaths, and caused damages estimated to be \$300 million. Many communities experienced inundation to rooftop levels, with water velocities great enough to completely demolish brick homes. The most recent flood event, in June-July 2002, resulted in 9 deaths in the study area. The study consists of an investigation of the Guadalupe and San Antonio River Basins to address improvements in the interest of flood damage reduction, environmental restoration, water quality, water supply, recreation and other allied purposes. Both structural and nonstructural solutions will be investigated to reduce flood damages while addressing the environmental needs of the watershed. Initial studies have identified potential water resource opportunities in the *Cibolo*, *Leon*, and *Salado* watersheds and the region encompassed by the Goliad, Karnes, and Wilson Counties (Lower San Antonio River Basin). The overall feasibility study completion date is to be determined.

San Antonio Channel Improvement Project, Alamo Heights, Reconnaissance Study, and Woodlawn, Reconnaissance Study. During a July 2002 flood event, the San Antonio region received an estimated 16 inches of rainfall in six days resulting in 8 deaths, 280 homes damaged, and \$8.9 million in estimated infrastructure damage. 905(b) Reconnaissance Reports to determine if there is a Federal interest have been completed and approved for both studies. Currently, Project Management Plans (PMP) and Feasibility Cost Sharing Agreements (FCSA) are being negotiated with the local sponsors.

Texas Department of Transportation Project, IH 410 and U. S. Highway 281 Intersection Roadway and Drainage Modifications. The Texas Department of Transportation (TxDOT) has proposed to upgrade and construct additional lanes along portions of IH 410 and US Highway 281 to upgrade the intersection to an interchange. As a result of the proposed road improvements, TxDOT proposes to construct modifications to 7,760 linear feet of existing concrete lined stream channel as described below (a general nationwide permit 14 was issued in December 2004):

- Expand 2,000 linear feet of 12-foot wide concrete pilot stream channel with herbaceous vegetated riparian corridor to a 90-foot wide concrete trapezoidal stream channel;
- Expand 3,650 linear feet of 12 to 60 foot wide concrete trapezoidal stream channel to a 70-foot wide concrete trapezoidal stream channel;
- Expand the existing box culverts under US Highway 281 by 40 feet;
- Replace the existing 240 foot long, 5.5 foot tall x 45 foot wide, concrete box culvert under IH 410 with one 240 foot long, 10 foot x 10 foot, concrete box culvert and two 240 foot long, 10 foot x 9 foot, concrete box culverts;
- Expand 1,630 linear feet of 25 foot wide concrete lined trapezoidal stream channel up to a maximum width of 40 feet wide and up to 8.3 feet deeper;
- Relocate an existing sanitary sewer pipeline and a potable water drinking pipeline;
- Expand three existing 240 foot long, 8 foot x 4 foot, concrete box culverts that convey drainage to the US Highway 281 drainage channel by adding two 240 foot long, 9 foot x 4 foot, concrete box culverts; and
- Expand five existing 390 foot long, 8 foot x 6 foot, concrete box culverts that convey drainage parallel to US Highway 281 by adding one 390 foot long, 6 foot x 6 foot, concrete box culvert and associate concrete riprap.

Olmos Basin Park Rehabilitation and Trail System Development. Specific details concerning exact locations, lengths, and quantities of recreational development within Olmos Basin Park have not been finalized at this time. However, based on information obtained from City of San Antonio personnel, this development could include, but is not limited to, new trails with trailheads, connections with existing park facilities, restroom renovations, and parking improvements.

Cumulative Assessment

To address cumulative impacts of the “no action” and recommended alternative in conjunction with multiple reasonably foreseeable projects of others, input from USACE environmental specialists and project managers was utilized. A matrix was developed to indicate the potential cumulative impacts for reasonably foreseeable projects on a series of environmental, social, and community resources. **Table 11** displays an assessment of the magnitude of the potential cumulative impacts in relation to the “no action” and recommended Olmos Creek restoration plan based upon information available at this time. It is important to keep in mind that by definition, a cumulative impact cannot occur unless there are direct or indirect impacts to a resource (discussed in Environmental Effects section) as a result of the proposed Federal project. As such, only those resources likely to experience cumulative impacts are addressed below. As can be seen in Table 11, the cumulative impacts resulting from this project would primarily result in slight to moderate beneficial impacts to Waters of the United States, surface water, fish and wildlife habitat, as well as recreational, scenic, and aesthetic resources. Again, because all alternatives identified above are similar in the fact that they are restoration oriented, it was determined that the cumulative impacts would be very similar to those of the recommended plan. As such, a detailed analysis and discussion of the cumulative impacts for each alternative was not included.

Table 11 - Cumulative Impact Analysis of Olmos Creek Aquatic Ecosystem Restoration Project with Reasonably Foreseeable Projects of Others for Environmental Resources within the Olmos Creek Study Area.

Environmental and Economic Resources Impacted	No Action Alternative	Olmos Creek Aquatic Ecosystem Restoration	Reasonably Foreseeable Projects of Others	Cumulative Impacts
Waters of the United States	□	□	□	□
Surface Water	○	□	□	□
Fish and Wildlife Habitat	□	□□	□	□□
Recreational, Scenic, and Aesthetic Resources	○	□	□□	□□

Legend: ○ No Effect □ Slight Adverse □□ Moderate Adverse □□□ Significant Adverse
 □ Slight Beneficial □□ Moderate Beneficial □□□ Significant Beneficial

PROJECT IMPLEMENTATION

Project Management Plan

The Project Management Plan (PMP) describes the activities to be taken and followed during project implementation, including plans and specifications, project construction, and maintenance and monitoring. The plans and specifications shall include a planting design for the recommended planting plan to ensure that prescribed tree, shrub, and grass species are planted in appropriate locations with appropriate distribution to optimize survivability and future habitat values. In addition, the plans and specifications shall include a design for the erosion control measures (riprap and live willow staking) to ensure sustainability and effectiveness. The plans and specifications would enable preparation of a firm cost estimate for the project. **Table 12** displays the approximate costs for the plans and specifications phase. The cost of the plans and specifications phase is part of the overall study cost and would be shared jointly by the Federal and non-Federal sponsor.

Table 12 - Estimated Cost for Plans and Specifications
(November 2006 Costs)

Plans and Specifications Items	Cost in Dollars
Field Survey Erosion Control Locations	\$15,000
Construction of Erosion Control Structures	\$15,000
Field Surveys for Selective Thinning / Invasive Removal	\$25,000
Removal of Trees	\$12,500
Restoration Plantings	\$20,000
Plan Layout/Cost Estimates	\$5,000
Environmental Review, Coordination, and Compliance	\$10,000
Real Estate Coordination	\$5,000
Project Management	\$12,500
Contingency (20%)	\$24,000
Total:	\$144,000

After award of a construction contract, the Federal government would oversee the construction of the restoration and recreation components of the recommended alternative. A warranty period for the actual construction items, including restoration plantings, would be determined before final acceptance of the project by the construction contractor. A monitoring and adaptive management plan would be included as part of the construction contract to monitor constructed areas and plantings and to determine any remedial actions such as vegetation replacement due to mortality. Remedial actions identified during the construction monitoring and adaptive management period would be funded as part of the total project cost, and cost shared 65% Federal and 35% non-Federal. **Table 13** outlines the estimated eight-year project implementation schedule from approval of the recommended plan to physical and financial closeout.

Table 13 - Project Implementation Schedule

Components	Date
Approval of PDR/EA	December 2006
Execute PCA	January 2007
Initiate Plans and Specifications	January 2007
95% Plans and Specifications	May 2007
Acquire Real Estate	June 2007
Advertise Construction Contract	July 2007
Initiate Construction	August 2007
Construction Complete	November 2009
Initiate Monitoring	November 2009 – November 2013
Physical and Financial Closeout	January 2014

Post Project Monitoring

Upon satisfying monitoring requirements and close-out of construction, a long-term monitoring plan would be provided to the non-Federal sponsor, which would outline procedures for documentation of restoration measures and the overall progress of the restoration areas. Restoration success is dependent on a number of variables and often is subject to unforeseen or unpredictable obstacles. Therefore, the monitoring plan would prove critical in maintaining the relationship between the management plan and ecosystem response as it would allow for modifications and adjustments to the restoration as necessary and feasible until restored areas become self-sustaining. Well-documented monitoring information would provide a basis for evaluation of the proposed mitigation measures as well as a reference for future restoration plans.

Various types of monitoring and habitat assessment techniques would be utilized to determine the post project success of the restoration effort. At a minimum, the USACE and non-Federal sponsor would monitor and evaluate the success of installed restoration measures such as erosion control structures and vegetation plantings throughout the project life. The USFWS would assist in post project habitat assessments through the use of HEP analysis. It is anticipated that the HEP analysis would occur approximately 5 to 10 years following construction completion. The post project HEP analysis would be compared with pre and post habitat conditions to assess the progress and success of the restoration project. Additional HEP assessments would be used throughout the project life to further evaluate project success and recommend adaptive management techniques to maintain optimal habitat conditions.

The non-Federal sponsor would be responsible for operation and maintenance of post project restoration measures, including vegetation replacements as well as erosion control structure repairs and management throughout the project life. The Operation, Management, Repair, Rehabilitation, and Replacement (OMRRR) Manual would be provided to the non-Federal sponsor and include consideration of periodic inspections, habitat assessments, and management recommendations for restoration measures.

Project Cooperation Agreement

The Project Cooperation Agreement (PCA) is a contract between the Federal Government and the non-Federal sponsor describing the rights and responsibilities of each party during project implementation, including cost sharing. The PCA would be executed after the receipt of Federal project approval and prior to advertisement of a construction contract. **Appendix F** provides a draft copy of the cooperation agreement.

Cost Apportionment

As described in the PCA, the total project cost would be shared between the Federal Government and the non-Federal sponsor on a 65% and 35% proportion, respectively. The non-Federal sponsor's 35% of the project total cost share is comprised of a credit for the value of all LERRD's, and credit for the value of any work-in-kind (WIK) services performed. In the event the value of the LERRD or WIK is less than 35%, the non-Federal partner would contribute the remaining value in cash. Credit for WIK can total 100% of the total non-Federal partner contribution but cannot result in a reimbursement. Further, with regard to WIK, the non-Federal partner would comply with applicable Federal and state laws and regulations, including the requirement to secure competitive bids for all work to be performed by contract. Contributions of cash, funds, materials, or services from other than the non-Federal partner or their contractor(s) may be accepted; however, such contributions would not be credited to the non-Federal partner share. These contributions would be applied to the entire total project cost and therefore reduce both the Federal and non-Federal share. **Table 14** displays the current estimated cost apportionment.

Table 14- Project Cost Apportionment

Item	Federal	Non-Federal	Total
Restoration Cost	\$642,646	\$0.0	\$642,646
Real Estate		\$519,431	\$519,431
Adjustment for 65/35	\$112,704	- \$112,704	
Total Cost	\$755,350	\$406,727	\$1,162,077
Cost Apportionment in Percent	65.0%	35.0%	100.0%

Real Estate Plan

The majority of the study area (approximately 96 acres) is currently owned in fee by the City of San Antonio. A small portion (approximately 2.5 acres) of the study area is in private ownership and would require a perpetual easement. This easement would be acquired by the City of Alamo Heights and assigned to the City of San Antonio by Memorandum of Agreement (MOA). Per the draft real estate plan, the total cost of real estate, including contingency is estimated to be \$519,431. The total non-Federal Sponsor required contributions are estimated at \$406,727 which would require the government to reimburse the City of San Antonio approximately \$112,704 if the project were construction within the existing estimated budget. The Real Estate components of the project are fully disclosed in **Appendix E**.

Although it is normally Corps policy to purchase fee interest in lands for construction and operations and maintenance, the proposed easement would provide adequate interest for the proposed activities on the lands located within the City of Alamo Heights. These particular project lands consist of the immediate bank of a watercourse and would be used only for the installation of features that improve habitat for aquatic resources. In addition, these lands are limited to the acreage necessary to construct and operate the ecosystem restoration features. The total acreage needed by easement would be 2.5 out of a total of 98.5 acres. They also do not require public access and are isolated and limited from public access due to the watercourse. The proposed easement language would be approved by the Corps, local sponsor and City of Alamo Heights prior to signature of the Project Cost-sharing Agreement.

Operation and Maintenance

After completion of the monitoring and adaptive management period, the non-Federal sponsor would assume operation and maintenance responsibility for the entire project footprint, which includes sponsor-owned property and flowage easement property. The City of San Antonio is responsible for all long-term project operations, maintenance, repairs, replacements, and rehabilitations following completion of construction. Operations and maintenance costs were estimated at \$22,677 per year based on required riparian corridor maintenance, debris removal activities, and repair of bank stabilization measures. The operation and maintenance schedule would vary by season and necessity and should include, but not be limited to the following activities: 1) periodic replanting and pruning of trees and shrubs in reforestation areas to improve stand health; 2) removal of debris from within the restoration areas; 3) annual removal or treatment of invasive and non-native plant species within the restoration area; and 4) monitoring for stability and repair of rip-rap / live willow stake structures located within Area Two when necessary.

The tree, shrub, and herbaceous species recommended for planting were specifically selected because they are native to the region and are expected to grow with minimal maintenance. However, it is anticipated that some maintenance would be required as described above, especially during the first few years after construction, to ensure successful establishment of vegetation plantings.

COORDINATION OF RECOMMENDED ALTERNATIVE

Views of Sponsor

The City of San Antonio has been identified as the non-Federal sponsor. The City of San Antonio has been involved during the development of restoration alternatives and concurs with the recommended restoration alternative. The City of San Antonio intends to participate in the implementation of the recommended alternative. A letter of intent stating the City of San Antonio's position is provided in **Appendix A**.

Results of Agency Coordination

The USFWS participated in the HEP analysis and served as a member of the project delivery team, whose recommendations helped serve as the basis for the restoration measures proposed in the recommended alternative. A final U.S. Fish and Wildlife Coordination Act Report was received on the proposed project. U.S. Fish and Wildlife Coordination Act Compliance letters are located in **Appendix G**.

As noted in the cultural resources section, the Texas State Historic Preservation Officer (SHPO) has reviewed the recommended restoration alternative and has concluded that additional studies would be required before construction could begin. Due to funding constraints a complete cultural resources survey has not been completed, but would be completed prior to any construction activities and would be coordinated with SHPO to gain Section 106 compliance.

Copies of the draft PDR/EA were sent to the following resource agencies as set forth by the National Environmental Policy Act (NEPA): TPWD; USFWS; EPA, Region 6; the THC; and the TCEQ. Only two comments were received. The USFWS supported the proposed project but suggested using white-tailed deer controls during restoration. Further communications with the USFWS indicated this was a suggestion if deer were a problem in the restoration area. All parties agreed that it would not be an issue and USACE would proceed without the control measures. TCEQ sent a standard comment notifying USACE that the local floodplain coordinators have approval authority over the project. The project has been coordinated with those individuals. Copies of all correspondence on the proposed restoration alternative are provided in **Appendix A**.

Regulatory Requirements

The proposed project has been reviewed in accordance with Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899. In addition, Executive Order 11990, Protection of Wetlands and Executive Order 11988, Floodplain Management was considered during development of the proposed project. The Fort Worth District Regulatory Permits personnel have reviewed the proposed project and have determined that NWP 13, Bank Stabilization, would apply. The TCEQ has issued a water quality certification for NWP 13 and no further coordination for Section 401 water quality certification is required.

Due to the nature and intent of the proposed restoration activities, there are no practicable alternatives for conducting the project outside of the Olmos Creek floodplain. However, the proposed project would not impact or significantly alter the existing boundary of the 100-year floodplain in any way. The proposed project is in compliance with Executive Order 11988, Floodplain Management. The proposed project would neither adversely impact nor result in any loss of wetlands, which complies with Executive Order 11990. Based on the findings in the EA, a Finding of No Significant Impact (FONSI) has been prepared for signature by the Fort Worth District Engineer.

CONCLUSIONS

The PDR/EA documents the results of a study conducted under the authority of Section 206 of the Water Resources Development Act of 1996, as amended. The purpose of the study was to develop a recommended alternative for improving the aquatic and terrestrial wildlife habitat within the Olmos Creek Basin, thereby restoring in-stream, bottomland hardwood, and grassland habitat components for resident and migratory wildlife.

The recommended alternative would increase the habitat value of the study area over the life of the project by restoring approximately 73 acres of riparian corridor habitat with native tree, shrub, and grass species. In addition, the recommended alternative would also restore approximately 17 acres of riparian grassland habitat and implement erosion control techniques to reduce deposition of sediment in approximately 6 acres of Olmos Creek. Habitats not subject to direct management techniques would eventually become more valuable to wildlife species due to increased species and structural diversity (e.g. more food and cover). State and federal agencies across the country have made great efforts to protect and restore riparian and aquatic habitats. This project would play a major role in accomplishing these goals and would provide an example and impetus for future restoration projects in Texas and across the nation.

The City of San Antonio has been identified as the non-federal sponsor, and has been presented with the findings of this report. The City of San Antonio has offered their support for the recommended alternative, including the cost-sharing plan, and has agreed to assume responsibilities for all operation, maintenance, replacement, and repair costs.

An EA was integrated into the PDR to assess the potential environmental impacts of implementing the recommended alternative. To meet requirements of the National Environmental Policy Act, a public notice was released to the public on November 18, 2005, initiating a 30-day public review period, of the integrated project report and EA. No public comments were received from the general public and only minor comments were received from state and Federal resource agencies; therefore, a final FONSI was prepared for the proposed action.

RECOMMENDATIONS

I propose that the recommended alternative described in this Planning Design Report be authorized for implementation under the authority of Section 206 of the Water Resources Development Act of 1996, as amended, as a Federal project, with such modifications as in the discretion of the Chief of Engineers may be advisable. The initial cost of this project is estimated to be \$1,162,077.

Prior to the commencement of construction, local interests must agree to meet the requirements for non-Federal responsibilities as outlined in this report and future legal documents. The City of San Antonio has demonstrated that they have the authority and the financial capability to provide all non-Federal requirements for the implementation, operation, and maintenance of the project. The recommendations contained herein reflect the information available at this time and current Department of the Army policies governing formulation of individual projects. They do not reflect the program and budgeting priorities inherent in the formulation of a national Civil Works construction program nor the perspective of higher review levels within the Executive Branch.



CHRISTOPHER W. MARTIN
Colonel, U.S. Army Corps of Engineers
District Engineer



CITY OF SAN ANTONIO

Letter of Intent

Colonel John R. Minahan, District Engineer
U.S. Army Corps of Engineers
P.O. Box 17300
Fort Worth, Texas 76102
January 24, 2006

Dear Colonel Minahan:

This is a letter of intent for the Olmos Creek Section 206 Aquatic Ecosystem Restoration Project. The Olmos Creek study was initiated by City Council in coordination with the San Antonio River Authority to implement a major goal in the North Central Neighborhood Community Plan that was adopted in February of 2002. This project responds to the North Central Community Plan's goals and vision for restoring the natural beauty and habitat to the Olmos Basin. In November 2003, the citizens of San Antonio approved a bond that issue funds for the rehabilitation of parks and earmarked monies for the Olmos Creek Restoration project that could be leveraged for the Aquatic Ecosystem Restoration and to develop trails in proximity to the target site.

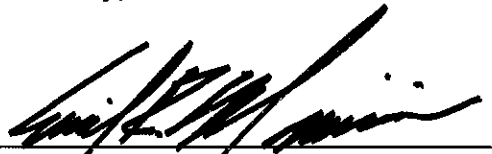
Since 2002, City of San Antonio staff has had the pleasure coordinating with USACE staff in the initial study and project management plan, the development of the planning design report, and environmental assessment. Next steps include adoption of the Project Coordination Agreement and formalizing a partnership with the City of Alamo Heights. The Olmos Creek project has presented the opportunity to partner with the City of Alamo Heights, and a Memorandum of Understanding to outline our neighboring city's level of participation is being developed. The Project Coordination Agreement is tentatively scheduled for consideration by San Antonio City Council in February 2006. The City is also including the Olmos Creek Project in the FY2006 Federal Legislative Program for the 109th Congress, 2nd Session, to brief our U.S. Congressional representatives and senators on the importance of this project in the preservation and restoration of San Antonio's urban creeks and rivers.

I have reviewed the draft Planning Design Report (PDR) for the Olmos Creek Section 206 Aquatic Ecosystem Restoration Project along Olmos Creek in San Antonio, Texas and support the identified recommended plan. I have also reviewed the draft Project Cooperation Agreement (PCA), understand and accept its provisions including cost sharing, operation and maintenance responsibilities, and now state the intent of the City of San Antonio to participate in the implementation of the recommended project.

I further acknowledge the current estimate total project cost of \$1,120,309, of which the City of San Antonio will be responsible for \$392,108. The City of San Antonio will provide: 96.85 acres of land owned in fee and 2.36 acres of land through perpetual easement at an estimated value of \$489,193 for implementation of proposed restoration features.

The City of San Antonio looks forward to working with the Fort Worth District in the implementation of the Olmos Creek Section 206 Aquatic Ecosystem Restoration Project. On behalf of the City of San Antonio, I especially would like to thank USACE staff persons Marcia Hackett, Account Project Manager, and Michael Votaw, Environmental Resource Specialist, for their professional assistance and dedication to the development of the project plans.

Sincerely,



Emil R. Moncivais, AICP, AIA, CNU
Planning Director



SAN ANTONIO
RIVER AUTHORITY

Water Brings Us Together

February 28, 2002

Mr. Stephen Brooks
U.S. Army Engineer District, Fort Worth
CESWF-PM-C
P.O. Box 17300
Fort Worth, Texas 76102-0300

Dear Mr. Brooks:

The San Antonio River Authority (SARA) requests consideration of the Corps of Engineers (COE) for participation in Section 206 of the Flood Control Act of 1960, as amended, on Olmos Creek in the city limits of San Antonio, Bexar County, Texas.

SARA requests assistance in conducting a study to identify environmental degradation that has occurred as a result of past channelization projects that impacted habitat value, as well as significant brush infestation. In conjunction with the study, it is requested that a Preliminary Restoration Plan (PRP) be prepared to evaluate restoration alternatives, develop cost estimates, and recommend a course of action.

SARA would act as the local sponsor for the project on behalf of the City of San Antonio and will provide existing data from records to assist in the accomplishment of this request. We request the COE prepare a PRP at its earliest convenience. If the PRP is favorable, SARA understands that the COE would then either conduct a Planning Design Analysis (PDA) or prepare a Detailed Project Report (DPR) depending on the scope of the PRP. Following the PDA or DPR, and if SARA elects to proceed with the project, SARA would enter into a cost share agreement with the COE. SARA also understands that the local sponsor cost share would be provided either monetarily, through in-kind services, or a combination of both.

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Gregory E. Rothe


February 28, 2002

Mr. Brooks

Page 2

Please contact Stephen T. Graham, P.E., Technical and Projects Manager, at (210) 227-1373, if you have questions or comments.

Sincerely,



GREGORY E. ROTHE, P.E.
General Manager

GR/STG/srl



December 13, 2002

Colonel Gordon Wells
U.S. Army Corps of Engineers
P.O. Box 17300
Fort Worth, Texas 76102

Dear Sir:

We have reviewed the draft Preliminary Restoration Report for the **Olmos Creek Aquatic Ecosystem Restoration Project** and support the identified recommended project. We have also reviewed the draft Project Cooperation Agreement, understand and accept its provisions including cost-sharing, operation and maintenance responsibilities, and now state the intent of the San Antonio River Authority (SARA) on behalf of the City of San Antonio to participate in the implementation of the recommended project.

I further acknowledge the current estimate total project cost of \$1,536,000, of which SARA will be responsible for \$538,000.

The local cash contribution will come from bond proceeds that the City of San Antonio will issue in FY'04, or as required thereafter.

SARA looks forward to working with the Fort Worth District in the implementation of the Olmos Creek Aquatic Ecosystem Restoration Project.

Sincerely,

GREGORY E. ROTHE, P.E.
General Manager

PM
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DD
PA-L
PER-P
PER-E
EXECUTIVE
COMMITTEE
CHAIRMAN
H.B. Ruckman, III
VICE CHAIRMAN
Louis E. Rowe
SECRETARY
JC Turner
TREASURER
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REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P.O. BOX 17300, 819 TAYLOR STREET
FORT WORTH, TEXAS 76102-0300

July 6, 2004

Planning, Environmental and Regulatory Division

SUBJECT: Olmos Creek Aquatic Ecosystem Restoration Project, San Antonio, Texas

Mr. F. Lawrence Oaks
State Historic Preservation Office
Texas Historical Commission
P.O. Box 12276
Capital Station
Austin, Texas 78711

Dear Mr. Oaks:

In accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, the U.S. Army Corps of Engineers, Fort Worth District is initiating the consultation process with your office regarding the proposed project noted above. The Fort Worth District is acting with the San Antonio River Authority for the City of San Antonio to restore a high quality aquatic ecosystem along Olmos Creek in San Antonio, Texas, under Section 206 of the Water Resources Development Act of 1996. The proposed study area, located between San Pedro Avenue and the Olmos Dam, consists of approximately 1.75 miles of the Olmos Creek corridor and 30 acres of the floodplain within the Olmos basin and includes the portion of the stream that passes through an existing golf course. The proposed project includes restoring and diversifying the riparian forest corridor, controlling invasive/non native vegetation, and reducing erosion and increasing shade along the stream (see enclosed map). The project goals will be achieved through planting of native hard mast producing trees and native grasses within the riparian corridor. Bank stabilization, especially within the existing golf course area, will be accomplished through the installation of stone rip rap in high erosion areas.

In an effort to comply with Section 106 requirements, we plan to have a professional archaeologist survey the proposed restoration locations prior to construction to locate any cultural resources that may be impacted by the restoration activities. Survey efforts may include shovel testing throughout the proposed planting areas. If deemed necessary, deep (backhoe) trenching will be conducted in floodplain areas if project implementation will include deep disturbance. Once we have the results of our cultural resources investigation, we will send you a report of the findings and seek your concurrence with our determinations.

We request your comments and input on our proposed plan for locating potential cultural resources and construction monitoring. If you have any questions, please feel free to contact Ms. Nancy Parrish (817) 886-1725.

Sincerely,

A handwritten signature in black ink, appearing to read "William Fickel, Jr.", written in a cursive style.

William Fickel, Jr.
Chief, Planning, Environmental
and Regulatory Division

Enclosure



TEXAS
HISTORICAL
COMMISSION

The State Agency for Historic Preservation

RICK PERRY, GOVERNOR

JOHN L. NAU, III, CHAIRMAN

F. LAWRENCE OAKS, EXECUTIVE DIRECTOR

August 10, 2004

William Fickel, Jr.
Chief, Environmental Division
CESWF-EV-EC
Dept. of the Army
Ft. Worth District, Corps of Engineers
P.O. Box 17300
Fort Worth, Texas 76102-0300

Attention: Nancy Parrish

Re: Review under Section 106 of the National Historic Preservation Act and
The Antiquities Code of Texas
Olmos Creek Aquatic Ecosystem Restoration Project
(COE-FWD)

Dear Mr. Fickel:

Thank you for allowing us to review the report referenced above. This letter serves as comment on the document from the State Historic Preservation Officer, the Executive Director of the Texas Historical Commission.

The review staff, led by Bill Martin, has examined the maps accompanying your letter. We concur that this area should be surveyed by a professional archeologist. Because this project is on land owned or controlled by the San Antonio River Authority, an Antiquities Permit must be issued by this agency prior to initiation of the survey. Please be sure to ask prospective principal investigators if they are eligible to receive a permit.

We look forward to receiving the draft survey report. Thank you for your cooperation in this federal review process, and for your efforts to preserve the irreplaceable heritage of Texas. **If we may be of further assistance, please contact Bill Martin at 512/463-5867.**

Sincerely,

A handwritten signature in cursive script, appearing to read "F. Lawrence Oaks".

for

F. Lawrence Oaks, State Historic Preservation Officer

FLO/wam



DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

November 18, 2005

Planning, Environmental, and Regulatory Division

Ms. Rhonda Smith
Office of Planning and Coordination
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue, Mail Stop 6ENXP
Dallas, Texas 75202

Dear Ms. Smith:

The U.S. Army Corps of Engineers (USACE) has prepared a Draft Planning Design Report with an Integrated Environmental Assessment (EA) and a draft Finding of No Significant Impact (FONSI) regarding the proposed implementation of the Section 206 Aquatic Ecosystem Restoration Project on Olmos Creek in San Antonio, Bexar County, Texas.

The project is needed to restore aquatic and riparian habitats to a condition closer to natural, historic conditions. Prior to human encroachment, the floodplain along Olmos Creek was comprised of high quality riparian and in-stream habitat. However, the majority of the bottomland plant community along this portion of the creek has become highly disturbed and fragmented due primarily to conversion of land to recreational and urban uses, as well as the presence of a variety of invasive species. The quality of in-stream aquatic habitat has degraded due to alterations to natural water flows and channel morphology and removal of the riparian corridor along portions of the creek.

The proposed action consists of the following measures within the Olmos Creek study area:

- Enhancement and restoration of approximately 73 acres of riparian corridor including invasive removal, bank vegetation, bottomland hardwood planting, and grass plantings within the riparian corridor.
- Bank stabilization measures including live willow staking and rip-rap to reduce erosion and improve approximately six acres of aquatic habitat.
- Enhancement of approximately 17 acres of native prairie through removal of invasive grass species and planting with native grasses.

Please respond with any comments or concerns your agency may have regarding the proposed project within 30 days of the date of the Notice of Availability enclosed with this letter. Additional information regarding the proposed action is available upon request.

Please address any requests or comments to Mr. Michael Votaw (817) 886-1849 of my staff.
Thank you for your cooperation in this matter.

Sincerely,

William Fickel, Jr.
Chief, Planning, Environmental, and
Regulatory Division

Enclosures

**(Letter sent to multiple agencies:
TCEQ, USFWS, TPWD, EPA,
SHPO)**

Mr. Votaw/1849
PAXTON, CESWF-PER-EE
HARBERG, CESWF-PER-E
FICKEL, CESWF-PER-
WV
WV
WV

Similar letter sent to the following agencies:

Mr. Robert Pine
Acting Field Supervisor
U.S. Fish and Wildlife Service
10711 Burnet Road, Suite 200
Austin, Texas 78758

Ms. Cindy Loeffler
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, Texas 78744

Mr. F. Lawrence Oakes
State Historic Preservation Office
P.O. Box 12276
Capital Station
Austin, Texas 78711

Mr. Rollin MaCrae
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, Texas 78744

Ms. Kathy Boydston
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, Texas 78744

Mr. Mark Fisher
Research and Environmental Assessment Section
Water Planning and Assessment Division
Texas Commission on Environmental Quality
12100 Park Circle 35, Building F
P.O. Box 13087, Capitol Station
Austin, Texas 78711

W



DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

REPLY TO
ATTENTION OF:

November 18, 2005

Planning, Environmental, and Regulatory Division

Central Public Library
600 Soledad
San Antonio, Texas 78212

To Whom It May Concern:

The U.S. Army Corps of Engineers, Fort Worth District, has completed preparation of a draft Planning Design Report (PDR), and Integrated Environmental Assessment (EA) and the draft Finding of No Significant Impact (FONSI) for the Olmos Creek Section 206 Aquatic Ecosystem Restoration Study, Bexar County, San Antonio, Texas.

The Public has an opportunity to review the above referenced document for thirty (30) days from the date it appears on the Notice of Availability (November 18, 2005). To ensure that the public has an opportunity to review the draft PDR and EA, please retain a copy of the attached document until December 19, 2005, and make it available to the public at their request.

Additional copies or additional information may be obtained by contacting Michael Votaw, at U.S. Army Corps of Engineers, attention: CESWF-PER-EE, P.O. Box 17300, Fort Worth, Texas 76102-0300, or by calling telephone number, (817) 886-1849.

Sincerely,

William Fickel, Jr.
Chief, Planning, Environmental, and
Regulatory Division

Enclosure

Same Letter Sent to:

Central Public Library
600 Soledad
San Antonio, Texas 78212
(210) 207-2500

Kenwood Community Center
300 Dora
San Antonio, Texas 78212
(210) 733-1454

Branch Library
233 Bushnell
San Antonio, Texas 78212
(210) 732-8639

San Pedro Branch Library
1315 San Pedro Ave
San Antonio, Texas 78205
(210) 732-1718



DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

REPLY TO
ATTENTION OF:

November 18, 2005

Planning, Environmental, and Regulatory Division

Ms. Nina Nixon-Mendez
City of San Antonio Planning Department
Neighborhood and Urban Design Division
114 West Commerce
P.O. Box 839966
San Antonio, Texas 78283

Dear Ms. Nina Nixon-Mendez:

The U.S. Army Corps of Engineers, Fort Worth District, has completed preparation of a draft Planning Design Report (PDR), and Integrated Environmental Assessment (EA) and the draft Finding of No Significant Impact (FONSI) for the Olmos Creek Section 206 Aquatic Ecosystem Restoration Study, Bexar County, San Antonio, Texas.

Enclosed is a copy of the above referenced document for your review. The review period lasts thirty (30) days from the date (November 18, 2005) it appears on the Notice of Availability (NOA) ending on December 19, 2005. Please provide any comments within the above-specified time frame.

Additional copies or additional information may be obtained by contacting Michael Votaw, at U.S. Army Corps of Engineers, attention: CESWF-PER-EE, P.O. Box 17300, Fort Worth, Texas 76102-0300, or by calling telephone number (817) 886-1849.

Sincerely,

A handwritten signature in black ink, appearing to read "William Fickel, Jr.", written in a cursive style.

William Fickel, Jr.
Chief, Planning, Environmental, and
Regulatory Division

Enclosure

Same Letter Sent to:

Susan Rash
City Administrator
City of Alamo Heights
6116 Broadway
San Antonio, TX 78209



REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

November 18, 2005

NOTICE OF AVAILABILITY

PROPOSED IMPLEMENTATION OF THE SECTION 206 AQUATIC ECOSYSTEM RESTORATION PROJECT SAN ANTONIO, TEXAS

Description. Interested parties are hereby notified that the District Engineer, U.S. Army Corps of Engineers (USACE), Fort Worth District, has prepared an Environmental Assessment (EA) and draft Finding of No Significant Impact (FONSI) regarding the implementation of an aquatic ecosystem restoration project located along Olmos Creek in the City of San Antonio, Bexar County, Texas.

Statutory Authority. This notice is being issued to all interested parties in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended, the Council on Environmental Quality (CEQ) Code of Federal Regulations (40 CFR parts 1500-1508), and Engineering Regulation (ER) 200-2-2. This restoration project would be conducted under Section 206 of the Water Resources Development Act of 1996, as amended (33 USC 2201).

Background. The project area includes a portion of Olmos Creek between San Pedro Avenue and Olmos Dam, including portions of Olmos Municipal Golf Course and Olmos Basin Park in San Antonio, Texas (map attached). The project is needed to restore aquatic and riparian habitats to a condition closer to natural, historic conditions. Prior to human encroachment, the floodplain along Olmos Creek was comprised of high quality riparian and in-stream habitat. However, the majority of the bottomland plant community along this portion of the creek has become highly disturbed and fragmented due primarily to conversion of land to recreational and urban uses, as well as the presence of a variety of invasive species. The quality of in-stream aquatic habitat has degraded due to alterations to natural water flows and channel morphology and removal of the riparian corridor along portions of the creek.

The purpose of the proposed action is to implement restoration measures that would remedy some of these degradations by restoring habitats within the project area, which includes the Olmos Municipal Golf Course and Olmos Basin Park. Specific degradations that need restoration include areas experiencing bank erosion, a narrow, fragmented riparian corridor, a lack of stream shade, and decreased plant species diversity, specifically hard mast producing trees. Lands would be made available by the City of San Antonio as the non-Federal sponsor. The City would also be responsible for all operation, maintenance, replacement, and repair costs.

Proposed Action.

The proposed action consists of the following measures within the Olmos Creek study area:

- Enhancement and restoration of approximately 73 acres of riparian corridor including invasive removal, bank vegetation, bottomland hardwood planting, and grass plantings within the riparian corridor.
- Bank stabilization measures including live willow staking and rip-rap to reduce erosion and improve approximately six acres of aquatic habitat.
- Enhancement of approximately 17 acres of native prairie through removal of invasive grass species and planting with native grasses.

Alternatives considered include the proposed action (recommended plan) and no action as described in the draft Planning Design Report (PDR) and integrated EA. Additional alternatives and scales were analyzed in the draft DPR/EA, but eliminated from further analysis either because project restoration objectives were not realized or the plans were not cost effective. Under the no action alternative, no restoration measures would be implemented. The lack of a well-developed riparian corridor and continuation of existing management practices would likely result in continued loss of riparian habitat, bank erosion, and sedimentation.

The proposed action would not have any significant impacts on the social, economic, or human and natural environment. No adverse impact on any species, which are proposed or listed as threatened or endangered under the Endangered Species Act, is expected. No significant historical, archeological, or hazardous waste concerns were identified within the project area. Contractors would be required to have erosion control and hazardous spill prevention plans in place, and would prepare a Texas Pollutant Discharge Elimination System plan and Stormwater Pollution Prevention Plan. Vegetation and wetlands not proposed for restoration would be avoided during construction.

Public Meeting. A public meeting has not been scheduled for the proposed action. Prior to the close of the comment period, any person may make a written request for a public meeting, setting forth the particular reasons for the request. The District Engineer will then determine whether the issues raised are substantial and should be considered in his decision. If a public meeting is warranted, all known interested parties will be notified of the time, date, and location of such a meeting.

Public Review. Pursuant to the regulations implementing the procedural provisions of the National Environmental Policy Act of 1969 as amended in 1975 (40 Code of Federal Regulations [CFR], Parts 1500 through 1508), the U.S. Department of the Army gives notice that it has prepared the required environmental documentation for the Olmos Creek Aquatic Ecosystem Restoration Project in San Antonio, Texas. This document is available for review at the following addresses:

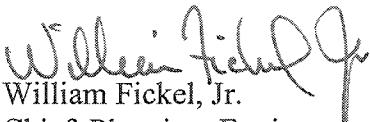
Central Public Library
600 Soledad
San Antonio, Texas 78212
(210) 207-2500

Branch Library
233 Bushnell
San Antonio, Texas 78212
(210) 732-8639

Kenwood Community Center
300 Dora
San Antonio, Texas 78212
(210) 732-1718

San Pedro Branch Library
1315 San Pedro Ave.
San Antonio, Texas 78205
(210) 733-1454

Comment Period. The comment period for this action is 30 days from the date of this Public Notice. Please address any comments to Mr. Michael Votaw, CESWF-PER-EE, Post Office Box 17300, Fort Worth, Texas 76102-0300, or by e-mail at Michael.Votaw@swf02.usace.army.mil. Copies of the EA and draft FONSI may be requested in writing at the above address, by telephone at (817) 886-1849, or visit the Fort Worth District website at www.swf.usace.army.mil.


William Fickel, Jr.
Chief, Planning, Environmental,
and Regulatory Division

Kathleen Hartnett White, *Chairman*
R. B. "Ralph" Marquez, *Commissioner*
Larry R. Soward, *Commissioner*
Glenn Shankle, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

January 11, 2006

Mr. Michael Votaw
Regulatory Branch
CESWF-PER-EE
United States Army Corps of Engineers
Post Office Box 17300
Fort Worth, Texas 76102-0300

Re: Section 206 Aquatic Ecosystem Restoration Project-San Antonio, Texas

Dear Mr. Votaw:

This is in response to your November 18, 2005, Public Notice concerning the referenced project.

Section 16.236 (h)(4) of the Texas Water Code requires communities which have qualified for participation in the National Flood Insurance Program to approve plans for the construction or maintenance of a levee or other improvement prior to starting a project.

Our records indicate that the City of San Antonio and Bexar County are participants in the National Flood Insurance Program. As such, the City and County have approval authority over this project.

Should you have any questions, please contact me at the address below or telephone 512/239-6155.

Thank you for bringing this matter to our attention.

Sincerely,

A handwritten signature in black ink, appearing to read "Dean Minchillo".

Dean Minchillo, CFM
Floodplain Specialist



DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

REPLY TO
ATTENTION OF:

August 29, 2006

Planning, Environmental, and Regulatory Division

Mr. Bill Seawell
U.S. Fish and Wildlife Service
Ecological Services
10711 Burnet Road, Suite 200
Austin, TX 78758

Dear Mr. Seawell:

This letter is in response to a letter from your agency dated November 28, 2005, regarding the Olmos Creek Section 206 Aquatic Ecosystem Restoration Project in San Antonio, Texas. The U.S. Army Corps of Engineers (Corps) considered this letter to represent the draft Fish and Wildlife Coordination Act Report.

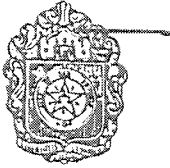
The Corps intends to implement the plan as proposed in the draft *Planning Design Report and Environmental Assessment for Olmos Creek, November 2005* with a minor modification. The monitoring as proposed in the draft Project Report was above the 1% limit of the cost of the restoration features. Therefore the monitoring will be reduced from \$20,000 to \$2,250 to be in compliance with Corp's guidance. This minor change would not require a second public review. Therefore, the Corps intends to execute a FONSI and forward the final Project Report for higher Corp's approval. We are requesting a final Fish and Wildlife Coordination Act Report to accompany the final Project Report.

Thanks for your consideration in this matter and if you have any questions or comments please contact Mr. Rob Newman at 817-886-1762 or by email at rob.newman@swf02.usace.army.mil.

Sincerely,

A handwritten signature in cursive script that reads "Mark C. Harberg".

William Fickel, Jr.
Chief, Planning, Environmental, and
Regulatory Division



CITY OF SAN ANTONIO

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Colonel John R. Minahan, District Engineer
U.S. Army Corps of Engineers
P.O. Box 17300
Fort Worth, Texas 76102

December 22, 2006

Dear Colonel Minahan:

I have reviewed the draft Planning Design Report (PDR) for the Olmos Creek Section 206 Aquatic Ecosystem Restoration Project along Olmos Creek in San Antonio, Texas and support the identified recommended plan. I have also reviewed the draft Project Cooperation Agreement (PCA), understand and accept its provisions including cost sharing, operation and maintenance responsibilities, and now state the intent of the City of San Antonio to participate in the implementation of the recommended project.

I further acknowledge the current estimate total project cost of \$1,162,077, of which the City of San Antonio will be responsible for \$406,727. The City of San Antonio will provide 96.85 acres of land owned in fee by the City of San Antonio. The City of Alamo Heights will provide 2.36 acres of land in the City of Alamo Heights through perpetual easement. The estimated value of land and easements is \$519,431 for implementation of proposed restoration features. The City of San Antonio understands it may be reimbursed \$112,704 for LEERD values.

The City of San Antonio looks forward to working with the Fort Worth District in the implementation of the Olmos Creek Section 206 Aquatic Ecosystem Restoration Project.

Sincerely,

Emil R. Moncivais, FAICP, AIA, CNU
Planning and Community Development Director

BIBLIOGRAPHY

Barbour, M.T., J. Gerritsen, B.D. Snyder, and J.B. Stribling. 1999. Rapid Bioassessment Protocols for Use in Streams and Wadeable Rivers: Periphyton, Benthic Macroinvertebrates and Fish, Second Edition. EPA 841-B-99-002. U.S. Environmental Protection Agency; Office of Water; Washington, D.C.

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Frye, R.G. 1986. Bottomland hardwoods-current supply, status, habitat quality and future impacts from reservoirs. In McMahan, C.A., and R.G. Frye, eds. *Bottomland Hardwoods in Texas - Proceedings of an Interagency Workshop on Status and Ecology, May 6-7, 1986*. Texas Parks and Wildlife Dep. Pub. PWD-7100-133-3/87. pp. 24-27.

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Mitsch, W. J., and Gosselink, J. G. (1993). *Wetlands, 2nd Edition*. Van Nostrand Reinhold, New York.

Noss, R.F., E.T. LaRoe III, and J.M. Scott. 1995. *Endangered Ecosystems of the United States: A preliminary assessment of loss and degradation*. U.S. Dept. of Interior, National Biological Service, Biological Report No. 28. 58pp.

Robinson, R., W. Hansen, and K. Orth. 1995. *Evaluation of Environmental Investments Procedures Manual Interim: Cost Effectiveness and Incremental Cost Analysis*. IWR Report 95-R-1995. Alexandria, Vir.: U.S. Army Corps of Engineers, Institute for Water Resources.

Verry, E.S., J.W. Hornbeck, and C.A. Dolloff. 2000. *Riparian Management in Forests of the Continental Eastern United States*. Lewis publishers, 402pp.



The EDR Radius Map with GeoCheck[®]

**Olmos Creek Aquatic Restoration Sec 206
Olmos Creek Aquatic
San Antonio, TX 78212**

Inquiry Number: 0981078.1s

May 21, 2003

The Source For Environmental Risk Management Data

3530 Post Road
Southport, Connecticut 06890

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

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

Disclaimer

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-00. Search distances are per ASTM standard or custom distances requested by the user.

TARGET PROPERTY INFORMATION

ADDRESS

OLMOS CREEK AQUATIC
SAN ANTONIO, TX 78212

COORDINATES

Latitude (North): 29.488200 - 29° 29' 17.5"
Longitude (West): 98.488300 - 98° 29' 17.9"
Universal Transverse Mercator: Zone 14
UTM X (Meters): 549604.9
UTM Y (Meters): 3262007.0
Elevation: 721 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property: 2429098-D4 SAN ANTONIO EAST, TX
Source: USGS 7.5 min quad index

TARGET PROPERTY SEARCH RESULTS

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

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the ASTM E 1527-00 search radius around the target property for the following databases:

FEDERAL ASTM STANDARD

NPL..... National Priority List
Proposed NPL..... Proposed National Priority List Sites
CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System
CERC-NFRAP..... CERCLIS No Further Remedial Action Planned
CORRACTS..... Corrective Action Report
RCRIS-TSD..... Resource Conservation and Recovery Information System
RCRIS-LQG..... Resource Conservation and Recovery Information System
ERNS..... Emergency Response Notification System

STATE ASTM STANDARD

SHWS..... State Superfund Registry

EXECUTIVE SUMMARY

SWF/LF..... Permitted Solid Waste Facilities
CLI..... Closed Landfill Inventory
TX VCP..... Voluntary Cleanup Program Database

FEDERAL ASTM SUPPLEMENTAL

CONSENT..... Superfund (CERCLA) Consent Decrees
ROD..... Records Of Decision
Delisted NPL..... National Priority List Deletions
HMIRS..... Hazardous Materials Information Reporting System
MLTS..... Material Licensing Tracking System
MINES..... Mines Master Index File
NPL Liens..... Federal Superfund Liens
PADS..... PCB Activity Database System
DOD..... Department of Defense Sites
RAATS..... RCRA Administrative Action Tracking System
TRIS..... Toxic Chemical Release Inventory System
TSCA..... Toxic Substances Control Act
SSTS..... Section 7 Tracking Systems
FTTS..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

STATE OR LOCAL ASTM SUPPLEMENTAL

AST..... Petroleum Storage Tank Database
TX Spills..... Spills Database
IOP..... Innocent Owner/Operator Program
Multimedia..... Multi Media Enforcement Cases
WasteMgt..... Commercial Hazardous & Solid Waste Management Facilities
AIRS..... Current Emission Inventory Data

EDR PROPRIETARY HISTORICAL DATABASES

Coal Gas..... Former Manufactured Gas (Coal Gas) Sites

BROWNFIELDS DATABASES

Brownfields..... Brownfields Site Assessments
TX VCP..... Voluntary Cleanup Program Database

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. EDR's definition of a site with an elevation equal to the target property includes a tolerance of +/- 10 feet. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property (by more than 10 feet). Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

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

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

EXECUTIVE SUMMARY

FEDERAL ASTM STANDARD

RCRIS: The Resource Conservation and Recovery Act database includes selected information on sites that generate, store, treat, or dispose of hazardous waste as defined by the Act. The source of this database is the U.S. EPA.

A review of the RCRIS-SQG list, as provided by EDR, and dated 09/09/2002 has revealed that there are 3 RCRIS-SQG sites within approximately 0.75 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
QUALITY AUTO SERVICE INC	839 BASSE RD	1/4 - 1/2 W	A4	19
U-HAUL REPAIR	5810 SAN PEDRO AVE	1/2 - 1 W	B7	27
THE PEP BOYS SAN PEDRO	6200 SAN PEDRO AVE	1/2 - 1 WNW	D17	66

STATE ASTM STANDARD

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Texas Commission on Environmental Quality's Leaking Petroleum Storage Tank Database.

A review of the LUST list, as provided by EDR, and dated 04/18/2003 has revealed that there are 15 LUST sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
DATAFLEET 1961	835 BASSE RD	1/4 - 1/2 W	A2	9
NORTHSIDE AUTO PARTS	5906 SAN PEDRO	1/2 - 1 W	B5	19
OLMOS BASIN GOLF COURSE	7022 MCCULLOUGH AVE	1/2 - 1 NNW	9	32
CENTRAL DIST CO	6127 SAN PEDRO	1/2 - 1 WNW	C11	40
CATALINA MOTORS	6143 SAN PEDRO	1/2 - 1 WNW	C12	45
BILL BROWN AUTOMOTIVE	5505 SAN PEDRO AVE	1/2 - 1 WSW	13	53
DIAMOND SHAMROCK 95	5105 N MCCULLOUGH	1/2 - 1 SSW	14	53
ALAMO CEMENT CO	HWY 281	1/2 - 1 NE	15	61
OFFICES TO GO	6234 SAN PEDRO AVE	1/2 - 1 WNW	D19	70
BOYD CORP	6325 SAN PEDRO	1/2 - 1 NW	20	72
CRYSTAL CAR WASH	6402 SAN PEDRO	1/2 - 1 NW	E21	72
FDIC FOR NORTHSIDE BANK	6411 SAN PEDRO	1/2 - 1 NW	E22	77
EXXON RS 63670	6523 SAN PEDRO	1/2 - 1 NW	23	79
BANNER SIGNS & BARRICADES INC	70 HABY DR	1/2 - 1 W	24	85
E-Z MART 226	6614 SAN PEDRO BLVD	1/2 - 1 NW	25	86

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Texas Commission on Environmental Quality's Petroleum Storage Tank Database.

A review of the UST list, as provided by EDR, and dated 04/28/2003 has revealed that there are 13 UST sites within approximately 0.75 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
DATAFLEET 1961	835 BASSE RD	1/4 - 1/2 W	A2	9
NORTHSIDE AUTO PARTS	5906 SAN PEDRO	1/2 - 1 W	B5	19
STOP N GO 2086	5811 SAN PEDRO AVE	1/2 - 1 W	B6	22

EXECUTIVE SUMMARY

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
SAN PEDRO U HAUL CTR 74480	5810 SAN PEDRO	1/2 - 1 W	B8	28
OLMOS BASIN GOLF COURSE	7022 MCCULLOUGH AVE	1/2 - 1 NNW 9		32
DBA DIXON BROS AUTO CENTER	210 JACKSON-KELLER	1/2 - 1 NW	10	39
CENTRAL DIST CO	6127 SAN PEDRO	1/2 - 1 WNW C11		40
CATALINA MOTORS	6143 SAN PEDRO	1/2 - 1 WNW C12		45
DIAMOND SHAMROCK 95	5105 N MCCULLOUGH	1/2 - 1 SSW 14		53
PEP BOYS 734	6200 SAN PEDRO	1/2 - 1 WNW D16		62
ALS CORNER STORE	5407 SAN PEDRO AVE	1/2 - 1 WSW	18	66
OFFICES TO GO	6234 SAN PEDRO AVE	1/2 - 1 WNW D19		70
<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
ALAMO CEMENT	BOX 6925	1/4 - 1/2 ENE	1	6

FEDERAL ASTM SUPPLEMENTAL

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 01/14/2003 has revealed that there is 1 FINDS site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
QUALITY AUTO SERVICE INC	839 BASSE RD	1/4 - 1/2 W	A4	19

STATE OR LOCAL ASTM SUPPLEMENTAL

TX IHW: The Industrial and Hazardous Waste Database contains summary reports by waste handlers, generators and shippers in Texas.

A review of the Ind. Haz Waste list, as provided by EDR, has revealed that there is 1 Ind. Haz Waste site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
QUALITY AUTO SERVICE, INC.	839 BASSE RD.	1/4 - 1/2 W	A3	15

EXECUTIVE SUMMARY

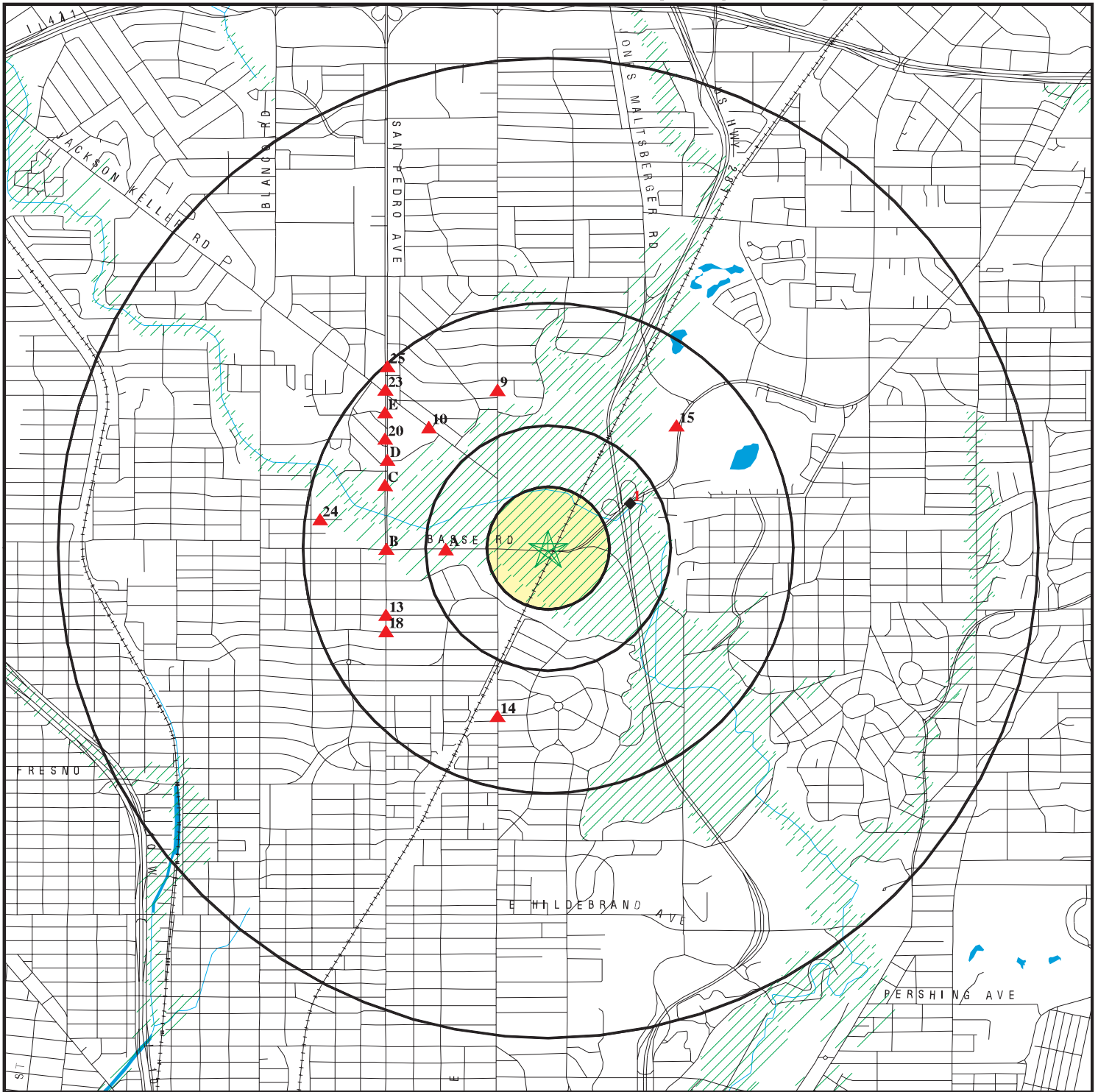
Due to poor or inadequate address information, the following sites were not mapped:

<u>Site Name</u>	<u>Database(s)</u>
FIRST QUALITY CYLINDERS	SHWS
PHIPPS PLATING	SHWS
J.C. PENNCO WASTE OIL SERVICE	SHWS
AZTEC CERAMICS	SHWS
5229 KBER SQUARE, SAN ANTONIO	SWF/LF
4542 S.E. LOOP 410 (IH 410)	SWF/LF, Ind. Haz Waste
4542 S LOOP 410 (IH 410)	SWF/LF
MARBACH OAKS	SWF/LF
7400 MERTON MINTOR BLVD.,2.0 M	SWF/LF
MISSION TERRACE OFFICE COMPLEX	SWF/LF
0.4 MI SE OF JONES-MALTSBERGER	SWF/LF
NORTHEAST POLICE STATION	LUST
COMET 1 HR CLEANERS	RCRIS-SQG, FINDS
WAL MART STORE NO 2404	RCRIS-SQG, FINDS
DRUMS ARE IN A DRY CREEK BED	ERNS
SPECPRO, INC.	MLTS
LINCOLN HEIGHTS SHOPPING CENTER/CO	TX VCP
ALAMO CEMENT COMPANY/MATERIALS YAR	TX VCP
MKT - SLOAN RAILYARD	TX VCP
DATAPPOINT CORPORATION	Ind. Haz Waste
CHEVRON #108562	Ind. Haz Waste
CHEVRON #108562	Ind. Haz Waste
BECK CONCRETE	Ind. Haz Waste
BECK CONCRETE	Ind. Haz Waste
BECK CONCRETE	Ind. Haz Waste
BECK CONCRETE	Ind. Haz Waste
BECK CONCRETE	Ind. Haz Waste
BECK CONCRETE	Ind. Haz Waste
ADVANCED TOBACCO PRODUCTS INC.	Ind. Haz Waste
EXXON CO. USA 63732	Ind. Haz Waste
EXXON CO. USA 63732	Ind. Haz Waste
BROADWAY DODGE DBA	Ind. Haz Waste
BROADWAY DODGE DBA	Ind. Haz Waste
BROADWAY DODGE DBA	Ind. Haz Waste
BROADWAY DODGE (DBA)	Ind. Haz Waste
BROADWAY DODGE (DBA)	Ind. Haz Waste
AWARDS UNLIMITED	Ind. Haz Waste
AWARDS UNLIMITED	Ind. Haz Waste
AWARDS UNLIMITED	Ind. Haz Waste
AWARDS UNLIMITED	Ind. Haz Waste
AWARDS UNLIMITED	Ind. Haz Waste
LLOYD BALL EXXON	Ind. Haz Waste
LLOYD BALL EXXON	Ind. Haz Waste
HENDY ROSE GARAGE2	Ind. Haz Waste
HENDY ROSE GARAGE#2	Ind. Haz Waste
ARMY & A F EXCHANGE SERVICE	Ind. Haz Waste
ARMY & A F EXCHANGE SERVICE	Ind. Haz Waste
ARMY & A F EXCHANGE SERVICE	Ind. Haz Waste
ARMY & A/F EXCHANGE SERVICE	Ind. Haz Waste
ARMY & A/F EXCHANGE SERVICE	Ind. Haz Waste
CONTRACTORS EQUIPMENT REPAIR	Ind. Haz Waste
CONTRACTORS EQUIPMENT REPAIR	Ind. Haz Waste
ALAMO PARK, INC.	Ind. Haz Waste
ALAMO PARK, INC.	Ind. Haz Waste
COOPER EQUIPMENT CO	Ind. Haz Waste
COOPER EQUIPMENT CO	Ind. Haz Waste
COOPER EQUIPMENT CO	Ind. Haz Waste
COOPER EQUIPMENT CO.	Ind. Haz Waste
COOPER EQUIPMENT CO.	Ind. Haz Waste
LACKLAND AIR FORCE BASE TRAINING AN	Ind. Haz Waste

EXECUTIVE SUMMARY

NORTH IND SCHOOL DISTRICT	Ind. Haz Waste
NORTH IND SCHOOL DISTRICT	Ind. Haz Waste
NORTH IND SCHOOL DISTRICT	Ind. Haz Waste
NORTH IND. SCHOOL DISTRICT	Ind. Haz Waste
NORTH IND. SCHOOL DISTRICT	Ind. Haz Waste
VEG PAK INC.	Ind. Haz Waste
VEG PAK INC.	Ind. Haz Waste
VETERANS ADMIN. HOSP. SAN	Ind. Haz Waste
VETERANS ADMIN. HOSP. SAN	Ind. Haz Waste
J & S AUTO REPAIR	Ind. Haz Waste
J & S AUTO REPAIR	Ind. Haz Waste
J & S AUTO REPAIR	Ind. Haz Waste
GARLAND BOGGESS	Ind. Haz Waste
GARLAND BOGGESS	Ind. Haz Waste
GARLAND BOGGESS	Ind. Haz Waste
GARLAND BOGGESS	Ind. Haz Waste
GARLAND BOGGESS	Ind. Haz Waste
OLMOS EQUIPMENT	Ind. Haz Waste
OLMOS ENVIRONMENTAL SERVICES	Ind. Haz Waste
HARMONY HILLS AUTO SVC	Ind. Haz Waste
HARMONY HILLS AUTO SVC	Ind. Haz Waste
HARMONY HILLS AUTO SVC	Ind. Haz Waste
HARMONY HILLS AUTO SVC	Ind. Haz Waste
HARMONY HILLS AUTO SVC	Ind. Haz Waste
BURRIS REPAIR	Ind. Haz Waste
BURRIS REPAIR	Ind. Haz Waste
CHEVRON 108574	Ind. Haz Waste
EXXON CO USA 63280	Ind. Haz Waste
U.S. AIR FORCE	Ind. Haz Waste
LACKLAND AIR FORCE BASE - TRANSFER	Ind. Haz Waste
LACKLAND AIR FORCE BASE - TRANSFER	Ind. Haz Waste
LACKLAND AIR FORCE BASE - TRANSFER	Ind. Haz Waste
ROSS, A.C. & SON PAPER CO.,INC	Ind. Haz Waste
ROSS, A.C. & SON PAPER CO.,INC	Ind. Haz Waste
HALO DISTRIBUTING CO	Ind. Haz Waste
TOM FAIREY	Ind. Haz Waste
TOM FAIREY	Ind. Haz Waste
EXXON CO. USA 63670	Ind. Haz Waste
EXXON CO. USA 63670	Ind. Haz Waste
EXXON CO USA 63670	Ind. Haz Waste
EXXON CO USA 63670	Ind. Haz Waste
EXXON CO USA 63670	Ind. Haz Waste
EXXON CO. USA 63280	Ind. Haz Waste
EXXON CO. USA 63280	Ind. Haz Waste
CALVENDER BUICK INCORPORATED	Ind. Haz Waste
O'BOY SERVICE CO. OF S.A., INC	Ind. Haz Waste
O'BOY SERVICE CO. OF S.A., INC	Ind. Haz Waste
DUO-FAST	Ind. Haz Waste
DUO-FAST	Ind. Haz Waste
MAKITA CORP	Ind. Haz Waste
MAKITA CORP	Ind. Haz Waste
MAKITA CORP	Ind. Haz Waste
MAKITA CORP	Ind. Haz Waste
MAKITA CORP	Ind. Haz Waste
CHEVRON #108579	Ind. Haz Waste
CHEVRON #108579	Ind. Haz Waste
UNIT 1	AIRS

OVERVIEW MAP - 0981078.1s - U.S. Army Corps of Engineers



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Coal Gasification Sites
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

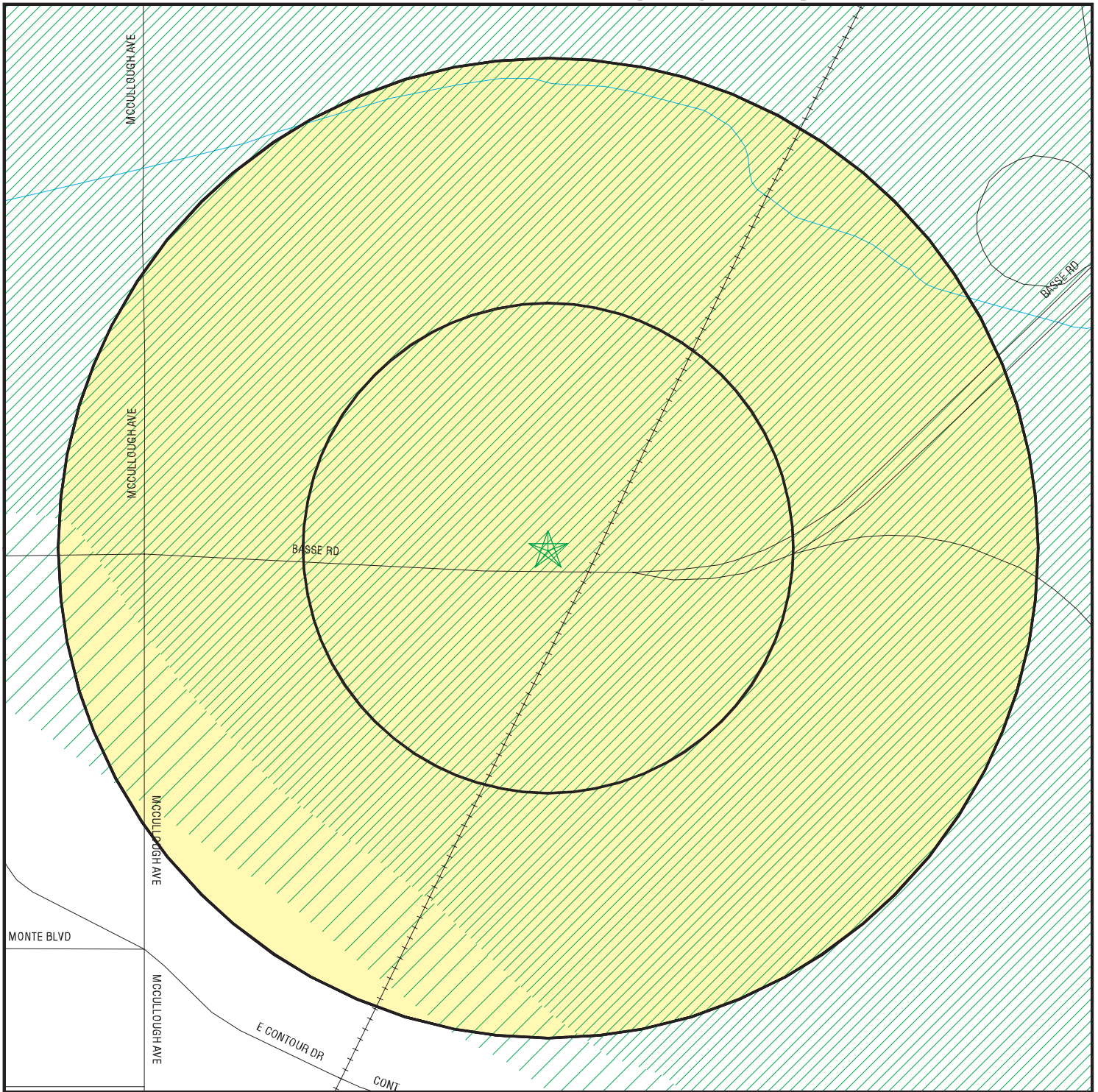
- Oil & Gas pipelines
- ▨ 100-year flood zone
- ▨ 500-year flood zone



TARGET PROPERTY: Olmos Creek Aquatic Restoration Sec 206
ADDRESS: Olmos Creek Aquatic
CITY/STATE/ZIP: San Antonio TX 78212
LAT/LONG: 29.4882 / 98.4883

CUSTOMER: U.S. Army Corps of Engineers
CONTACT: Eric Kirwan
INQUIRY #: 0981078.1s
DATE: May 21, 2003 12:58 pm

DETAIL MAP - 0981078.1s - U.S. Army Corps of Engineers



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ⚡ Coal Gasification Sites
- ⚠ Sensitive Receptors
- 🚧 National Priority List Sites
- 🗑️ Landfill Sites
- 🏠 Dept. Defense Sites

- 🛢️ Oil & Gas pipelines
- 🌊 100-year flood zone
- 🌊 500-year flood zone



<p>TARGET PROPERTY: Olmos Creek Aquatic Restoration Sec 206 ADDRESS: Olmos Creek Aquatic CITY/STATE/ZIP: San Antonio TX 78212 LAT/LONG: 29.4882 / 98.4883</p>	<p>CUSTOMER: U.S. Army Corps of Engineers CONTACT: Eric Kirwan INQUIRY #: 0981078.1s DATE: May 21, 2003 12:58 pm</p>
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MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<u>FEDERAL ASTM STANDARD</u>								
NPL		1.500	0	0	0	0	0	0
Proposed NPL		1.500	0	0	0	0	0	0
CERCLIS		1.000	0	0	0	0	NR	0
CERC-NFRAP		0.750	0	0	0	0	NR	0
CORRACTS		1.500	0	0	0	0	0	0
RCRIS-TSD		1.000	0	0	0	0	NR	0
RCRIS Lg. Quan. Gen.		0.750	0	0	0	0	NR	0
RCRIS Sm. Quan. Gen.		0.750	0	0	1	2	NR	3
ERNS		0.500	0	0	0	NR	NR	0
<u>STATE ASTM STANDARD</u>								
State Haz. Waste		1.500	0	0	0	0	0	0
State Landfill		1.000	0	0	0	0	NR	0
CLI		1.000	0	0	0	0	NR	0
LUST		1.000	0	0	1	14	NR	15
UST		0.750	0	0	2	11	NR	13
TX VCP		1.000	0	0	0	0	NR	0
<u>FEDERAL ASTM SUPPLEMENTAL</u>								
CONSENT		1.500	0	0	0	0	0	0
ROD		1.500	0	0	0	0	0	0
Delisted NPL		1.500	0	0	0	0	0	0
FINDS		0.500	0	0	1	NR	NR	1
HMIRS		0.500	0	0	0	NR	NR	0
MLTS		0.500	0	0	0	NR	NR	0
MINES		0.750	0	0	0	0	NR	0
NPL Liens		0.500	0	0	0	NR	NR	0
PADS		0.500	0	0	0	NR	NR	0
DOD		1.500	0	0	0	0	0	0
RAATS		0.500	0	0	0	NR	NR	0
TRIS		0.500	0	0	0	NR	NR	0
TSCA		0.500	0	0	0	NR	NR	0
SSTS		0.500	0	0	0	NR	NR	0
FTTS		0.500	0	0	0	NR	NR	0
<u>STATE OR LOCAL ASTM SUPPLEMENTAL</u>								
AST		0.500	0	0	0	NR	NR	0
TX Spills		0.500	0	0	0	NR	NR	0
IOP		0.500	0	0	0	NR	NR	0
Multimedia		0.500	0	0	0	NR	NR	0
Ind. Haz Waste		0.500	0	0	1	NR	NR	1
WasteMgt		0.500	0	0	0	NR	NR	0
AIRS		0.500	0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

<u>Database</u>	<u>Target Property</u>	<u>Search Distance (Miles)</u>	<u>< 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>> 1</u>	<u>Total Plotted</u>
<u>EDR PROPRIETARY HISTORICAL DATABASES</u>								
Coal Gas		1.500	0	0	0	0	0	0
<u>BROWNFIELDS DATABASES</u>								
Brownfields		1.000	0	0	0	0	NR	0
TX VCP		1.000	0	0	0	0	NR	0

NOTES:

AQUIFLOW - see EDR Physical Setting Source Addendum

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

Coal Gas Site Search: No site was found in a search of Real Property Scan's ENVIROHAZ database.

1	ALAMO CEMENT	UST	U003411923
ENE	BOX 6925		N/A
1/4-1/2	SAN ANTONIO, TX 78209		
2014 ft.			

**Relative:
 Lower**

UST:

Facility ID:	0032047	Tank Installer:	Not reported
Tank ID:	2	Installation Date:	01/01/78
Tank Emptied:	No	Status Date:	10/31/88
Capacity:	280	Unit ID:	00084095
Tank Material of Construction:	Steel		
Pipe Material of Construction:	Steel		
Other Materials of Construction:	Not reported		
Tank Status:	Removed from the Ground		
Tank Construction & Containment:	Not reported		
Pipe Construction & Containment:	Not reported		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Gasoline		
Compartment Other Substance:	Not reported		
Tank Release Detection Method:	Not reported		
Tank Release Method Detection II:	Not reported		
Tank Release Method Detection III:	Not reported		
Other Tank Release Method Detection:	None		
Tank Release Detection Variance :	No Variance		
Pipe Release Detection Method:	Not reported		
Other Pipe Release Detection Method :	None		
Pipe Release Detection Variance :	No Variance		
Spill and Overfill Protection:	Not reported		
Tank Corrosion Protection:	Not reported		
Pipe Corrosion Protection:	Not reported		
Other Corrosion Protection:	None		
Vapor Recovery Equipment Status:	Not reported		
Equipment Installed Date:	Not reported		
Equipment Installer:	Not reported		
Contractor Registration Number:	Not reported		
Tank Registration Date:	05/08/86		
Installer License Number:	Not reported		
Operator Name:	Not reported		
Operator Telephone number:	Not reported		
Operator Address:			
Operator Address building:	Not reported		
Contact Operator Name:			
Contact Operator title:	Not reported		
Contact Operator Phone:	Not reported		
Self-Certification date:	Not reported		
Signature Name:	Not reported		
Signature Title Name:	Not reported		
Signature Type Text:	Not reported		
Certification Submitted Type:	Not reported		
Registration Self-Certification Flag:	Not reported		
Fees Self-Certification Flag:	Not reported		
Financial Assurance Self-Certification flag:	Not reported		
Technical standards Self-Certification flag:	Not reported		
UST Delivery Certificate Expiration Date:	Not reported		
Compartment letter:	Not reported		

**Actual:
 712 ft.**

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

ALAMO CEMENT (Continued)

U003411923

Financial Responsibility Type:	Not reported		
Corrective Action Met Flag:	Not reported		
Third Party Met Flag:	Not reported		
Financial Assurance Beginning Date:	Not reported		
Piping Design & Ext. Containment 3 :	Not reported		
Piping Design & Ext. Containment 4 :	Not reported		
Type of Piping :	Not reported		
Internal Tank Lining Date :	00/00/00		
Pipe Connectors and Valves 1 :	Not reported		
Pipe Connectors and Valves 2 :	Not reported		
Pipe Connectors and Valves 3 :	Not reported		
Other Tank Corrosion Protection Text:	Not reported		
Tank Corrosion Protection Variance :	No Variance		
Pipe Corrosion Protection iii3 :	Not reported		
Pipe Corrosion Protection Variance :	No Variance		
Stage 2 Vapor Recry Equipment Status :	Not reported		
Stage 1 Equipment Installed Date :	Not reported		
Tank Tested :	Not reported		
Compartment Capacity :	0000000		
Owner ID :	Not reported		
Owner Name :	WESTEX INVESTMENT CORPORATION		
Owner Address :	UVALDE, TX 78802		
Owner Contact Telephone :	830-278-5681		
Owner Contact Name:	Marvin F. Kolinek		
Date Registration Form Received :	08/86/05		
Facility Type :	None of the above, or unidentified		
Name of Facility Manager :	R. BAUM		
Title of Facility Manager :	PRES.		
Facility Manager Phone :	5122472416		
Sign Name on Registration Form :	R. BAUM		
Title of Signer of Registration Form :	PRES.		
Date of Signature on Registration Form :	050386		
Facility in Ozone non-attainment area :	Not reported		
Facility ID:	0032047	Tank Installer:	Not reported
Tank ID:	1	Installation Date:	01/01/78
Tank Emptied:	No	Status Date:	10/31/88
Capacity:	1000	Unit ID:	00084096
Tank Material of Construction:	Steel		
Pipe Material of Construction:	Steel		
Other Materials of Construction:	Not reported		
Tank Status:	Removed from the Ground		
Tank Construction & Containment:	Not reported		
Pipe Construction & Containment:	Not reported		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Gasoline		
Compartment Other Substance:	Not reported		
Tank Release Detection Method:	Not reported		
Tank Release Method Detection II:	Not reported		
Tank Release Method Detection III:	Not reported		
Other Tank Release Method Detection:	None		
Tank Release Detection Variance :	No Variance		
Pipe Release Detection Method:	Not reported		
Other Pipe Release Detection Method :	None		
Pipe Release Detection Variance :	No Variance		
Spill and Overfill Protection:	Not reported		
Tank Corrosion Protection:	Not reported		

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

ALAMO CEMENT (Continued)

U003411923

Pipe Corrosion Protection: Not reported
Other Corrosion Protection: None
Vapor Recovery Equipment Status: Not reported
Equipment Installed Date: Not reported
Equipment Installer: Not reported
Contractor Registration Number: Not reported
Tank Registration Date: 05/08/86
Installer License Number: Not reported
Operator Name: Not reported
Operator Telephone number: Not reported
Operator Address:
Operator Address building: Not reported
Contact Operator Name:
Contact Operator title: Not reported
Contact Operator Phone: Not reported
Self-Certification date: Not reported
Signature Name: Not reported
Signature Title Name: Not reported
Signature Type Text: Not reported
Certification Submitted Type: Not reported
Registration Self-Certification Flag: Not reported
Fees Self-Certification Flag: Not reported
Financial Assurance Self-Certification flag: Not reported
Technical standards Self-Certification flag: Not reported
UST Delivery Certificate Expiration Date: Not reported
Compartment letter: Not reported
Financial Responsibility Type: Not reported
Corrective Action Met Flag: Not reported
Third Party Met Flag: Not reported
Financial Assurance Beginning Date: Not reported
Piping Design & Ext. Containment 3 : Not reported
Piping Design & Ext. Containment 4 : Not reported
Type of Piping : Not reported
Internal Tank Lining Date : 00/00/00
Pipe Connectors and Valves 1 : Not reported
Pipe Connectors and Valves 2 : Not reported
Pipe Connectors and Valves 3 : Not reported
Other Tank Corrosion Protection Text: Not reported
Tank Corrosion Protection Variance : No Variance
Pipe Corrosion Protection iii3 : Not reported
Pipe Corrosion Protection Variance : No Variance
Stage 2 Vapor Recry Equipment Status : Not reported
Stage 1 Equipment Installed Date : Not reported
Tank Tested : Not reported
Compartment Capacity : 0000000
Owner ID : Not reported
Owner Name : WESTEX INVESTMENT CORPORATION
Owner Address : UVALDE, TX 78802
Owner Contact Telephone : 830-278-5681
Owner Contact Name: Marvin F. Kolinek
Date Registration Form Received : 08/86/05
Facility Type : None of the above, or unidentified
Name of Facility Manager : R. BAUM
Title of Facility Manager : PRES.
Facility Manager Phone : 5122472416
Sign Name on Registration Form : R. BAUM
Title of Signer of Registration Form : PRES.

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

MAP FINDINGS

ALAMO CEMENT (Continued)

EDR ID Number
 EPA ID Number

Database(s)

Date of Signature on Registration Form : 050386
 Facility in Ozone non-attainment area : Not reported

U003411923

A2
West
1/4-1/2
2169 ft.

DATAFLEET 1961
835 BASSE RD
SAN ANTONIO, TX 78212

LUST **U003424095**
UST **N/A**

Site 1 of 3 in cluster A

Relative:
Higher

LUST:

Facility ID: 0021792
 Facility Location: 835 BASSE RD
 Reported Date: 7/19/1
 Entered Date: 12/17/1
 RPR Coordinator: SAW
 Region: 13
 Region City ID: San Antonio
 LPST Id: 115304
 Responsible Party: COASTAL MART INC
 RP Contact: DAVID ZUVANICH
 RP Telephone: 713/420-3414
 County Code: 015
 RP Address: 1001 LOUISIANA ST
 HOUSTON, TX 77002
 Priority: GW IMPACTED, NO APPARENT THREATS OR IMPACTS TO RECEPTORS
 Status: MONITORING

Actual:
728 ft.

UST:

Facility ID:	0021792	Tank Installer:	Not reported
Tank ID:	1	Installation Date:	01/01/71
Tank Emptied:	No	Status Date:	Not reported
Capacity:	8000	Unit ID:	00055952
Tank Material of Construction:	Steel		
Pipe Material of Construction:	Steel		
Other Materials of Construction:	Not reported		
Tank Status:	In Use		
Tank Construction & Containment:	Not reported		
Tank Construction & Containment II:	Single Wall		
Pipe Construction & Containment:	Not reported		
Pipe Construction & Containment II:	Single Wall		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Gasoline		
Compartment Other Substance:	Not reported		
Tank Release Detection Method:	SIR (Stat. Inventory Reconciliation) and Inventory Cntr		
Tank Release Method Detection II:	Not reported		
Tank Release Method Detection III:	Not reported		
Other Tank Release Method Detection:	Not reported		
Tank Release Detection Variance :	No Variance		
Pipe Release Detection Method:	Auto. Line Leak Detector(3.0gph for pressure piping)		
Pipe Release Detection Method II:	SIR (Stat. Inventory Reconciliation) and Inventory Cntr		
Other Pipe Release Detection Method :	Not reported		
Pipe Release Detection Variance :	No Variance		
Spill and Overfill Protection:	Auto. Flow Restrictor Valve		
Spill and Overfill Protection II:	Tight-Fill Fitting		
Spill and Overfill Protection III:	Tight-Fill Fitting		
Tank Corrosion Protection:	Composite Tank (steel w/FRP laminate)		
Pipe Corrosion Protection:	Composite Tank (steel w/FRP laminate)		
Other Corrosion Protection:	Not reported		
Vapor Recovery Equipment Status:	Stage 2 Vapor Recovery Equipment Installed		

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

DATAFLEET 1961 (Continued)

U003424095

Equipment Installed Date: 09/01/89
Equipment Installer: Not reported
Contractor Registration Number: Not reported
Tank Registration Date: 05/08/86
Installer License Number: Not reported
Operator Name: SUSSER PETROLEUM COMPANY LP
Operator Telephone number: Not reported
Operator Address: 2935 CACTUS RD

CORPUS CHRISTI, TX 78415
Operator Address building: Not reported
Contact Operator Name: Red Kluck
Contact Operator title: Env Mgr
Contact Operator Phone: 361-852-2266
Self-Certification date: 042402
Signature Name: RED KLUCK
Signature Title Name: Not reported
Signature Type Text: Legally-Authorized Rep of Owner
Certification Submitted Type: A
Registration Self-Certification Flag: 1
Fees Self-Certification Flag: Not reported
Financial Assurance Self-Certification flag: 1
Technical standards Self-Certification flag: 1
UST Delivery Certificate Expiration Date: 20/03/05
Compartment letter: A
Financial Responsibility Type: Insurance or Risk Retention Group
Corrective Action Met Flag: 1
Third Party Met Flag: 1
Financial Assurance Beginning Date: Not reported
Piping Design & Ext. Containment 3 : Not reported
Piping Design & Ext. Containment 4 : Not reported
Type of Piping : B
Internal Tank Lining Date : 00/00/00
Pipe Connectors and Valves 1 : 1
Pipe Connectors and Valves 2 : Not reported
Pipe Connectors and Valves 3 : Not reported
Other Tank Corrosion Protection Text: Not reported
Tank Corrosion Protection Variance : No Variance
Pipe Corrosion Protection iii3 : Not reported
Pipe Corrosion Protection Variance : No Variance
Stage 2 Vapor Recry Equipment Status : Not reported
Stage 1 Equipment Installed Date : Not reported
Tank Tested : Tested
Compartment Capacity : 0000000
Owner ID : 01665
Owner Name : SUSSER PETROLEUM COMPANY LP
Owner Address : 2935 CACTUS RD
CORPUS CHRISTI, TX 78415
Owner Contact Telephone : 361-852-2266
Owner Contact Name: Red Kluck
Date Registration Form Received : 08/86/05
Facility Type : None of the above, or unidentified
Name of Facility Manager : Barnes
Title of Facility Manager : Not reported
Facility Manager Phone : 210-366-0960
Sign Name on Registration Form : J.R. BARNES
Title of Signer of Registration Form : PRES

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

DATAFLEET 1961 (Continued)

U003424095

Date of Signature on Registration Form :	040886		
Facility in Ozone non-attainment area :	Not reported		
Facility ID:	0021792	Tank Installer:	Not reported
Tank ID:	4	Installation Date:	01/01/71
Tank Emptied:	No	Status Date:	Not reported
Capacity:	4000	Unit ID:	00055953
Tank Material of Construction:	Steel		
Pipe Material of Construction:	Steel		
Other Materials of Construction:	Not reported		
Tank Status:	In Use		
Tank Construction & Containment:	Not reported		
Tank Construction & Containment II:	Single Wall		
Pipe Construction & Containment:	Not reported		
Pipe Construction & Containment II:	Single Wall		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Gasoline		
Compartment Other Substance:	Not reported		
Tank Release Detection Method:	SIR (Stat. Inventory Reconciliation) and Inventory Cntr		
Tank Release Method Detection II:	Not reported		
Tank Release Method Detection III:	Not reported		
Other Tank Release Method Detection:	Not reported		
Tank Release Detection Variance :	No Variance		
Pipe Release Detection Method:	Auto. Line Leak Detector(3.0gph for pressure piping)		
Pipe Release Detection Method II:	SIR (Stat. Inventory Reconciliation) and Inventory Cntr		
Other Pipe Release Detection Method :	Not reported		
Pipe Release Detection Variance :	No Variance		
Spill and Overfill Protection:	Auto. Flow Restrictor Valve		
Spill and Overfill Protection II:	Tight-Fill Fitting		
Spill and Overfill Protection III:	Tight-Fill Fitting		
Tank Corrosion Protection:	Composite Tank (steel w/FRP laminate)		
Pipe Corrosion Protection:	Composite Tank (steel w/FRP laminate)		
Other Corrosion Protection:	Not reported		
Vapor Recovery Equipment Status:	Stage 2 Vapor Recovery Equipment Installed		
Equipment Installed Date:	09/01/89		
Equipment Installer:	Not reported		
Contractor Registration Number:	Not reported		
Tank Registration Date:	05/08/86		
Installer License Number:	Not reported		
Operator Name:	SUSSER PETROLEUM COMPANY LP		
Operator Telephone number:	Not reported		
Operator Address:	2935 CACTUS RD		
	CORPUS CHRISTI, TX 78415		
Operator Address building:	Not reported		
Contact Operator Name:	Red Kluck		
Contact Operator title:	Env Mgr		
Contact Operator Phone:	361-852-2266		
Self-Certification date:	042402		
Signature Name:	RED KLUCK		
Signature Title Name:	Not reported		
Signature Type Text:	Legally-Authorized Rep of Owner		
Certification Submitted Type:	A		
Registration Self-Certification Flag:	1		
Fees Self-Certification Flag:	Not reported		
Financial Assurance Self-Certification flag:	1		
Technical standards Self-Certification flag:	1		

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

DATAFLEET 1961 (Continued)

U003424095

UST Delivery Certificate Expiration Date:	20/03/05		
Compartment letter:	A		
Financial Responsibility Type:	Insurance or Risk Retention Group		
Corrective Action Met Flag:	1		
Third Party Met Flag:	1		
Financial Assurance Beginning Date:	Not reported		
Piping Design & Ext. Containment 3 :	Not reported		
Piping Design & Ext. Containment 4 :	Not reported		
Type of Piping :	B		
Internal Tank Lining Date :	00/00/00		
Pipe Connectors and Valves 1 :	1		
Pipe Connectors and Valves 2 :	Not reported		
Pipe Connectors and Valves 3 :	Not reported		
Other Tank Corrosion Protection Text:	Not reported		
Tank Corrosion Protection Variance :	No Variance		
Pipe Corrosion Protection iii3 :	Not reported		
Pipe Corrosion Protection Variance :	No Variance		
Stage 2 Vapor Recry Equipment Status :	Not reported		
Stage 1 Equipment Installed Date :	Not reported		
Tank Tested :	Tested		
Compartment Capacity :	0000000		
Owner ID :	01665		
Owner Name :	SUSSER PETROLEUM COMPANY LP		
Owner Address :	2935 CACTUS RD CORPUS CHRISTI, TX 78415		
Owner Contact Telephone :	361-852-2266		
Owner Contact Name:	Red Kluck		
Date Registration Form Received :	08/86/05		
Facility Type :	None of the above, or unidentified		
Name of Facility Manager :	Barnes		
Title of Facility Manager :	Not reported		
Facility Manager Phone :	210-366-0960		
Sign Name on Registration Form :	J.R. BARNES		
Title of Signer of Registration Form :	PRES		
Date of Signature on Registration Form :	040886		
Facility in Ozone non-attainment area :	Not reported		
Facility ID:	0021792	Tank Installer:	Not reported
Tank ID:	2	Installation Date:	01/01/71
Tank Emptied:	No	Status Date:	Not reported
Capacity:	4000	Unit ID:	00055954
Tank Material of Construction:	Steel		
Pipe Material of Construction:	Steel		
Other Materials of Construction:	Not reported		
Tank Status:	In Use		
Tank Construction & Containment:	Not reported		
Tank Construction & Containment II:	Single Wall		
Pipe Construction & Containment:	Not reported		
Pipe Construction & Containment II:	Single Wall		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Gasoline		
Compartment Other Substance:	Not reported		
Tank Release Detection Method:	SIR (Stat. Inventory Reconciliation) and Inventory Cntr		
Tank Release Method Detection II:	Not reported		
Tank Release Method Detection III:	Not reported		
Other Tank Release Method Detection:	Not reported		
Tank Release Detection Variance :	No Variance		

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

DATAFLEET 1961 (Continued)

U003424095

Pipe Release Detection Method:	Auto. Line Leak Detector(3.0gph for pressure piping)
Pipe Release Detection Method II:	SIR (Stat. Inventory Reconciliation) and Inventory Cntr
Other Pipe Release Detection Method :	Not reported
Pipe Release Detection Variance :	No Variance
Spill and Overfill Protection:	Auto. Flow Restrictor Valve
Spill and Overfill Protection II:	Tight-Fill Fitting
Spill and Overfill Protection III:	Tight-Fill Fitting
Tank Corrosion Protection:	Composite Tank (steel w/FRP laminate)
Pipe Corrosion Protection:	Composite Tank (steel w/FRP laminate)
Other Corrosion Protection:	Not reported
Vapor Recovery Equipment Status:	Stage 2 Vapor Recovery Equipment Installed
Equipment Installed Date:	09/01/89
Equipment Installer:	Not reported
Contractor Registration Number:	Not reported
Tank Registration Date:	05/08/86
Installer License Number:	Not reported
Operator Name:	SUSSER PETROLEUM COMPANY LP
Operator Telephone number:	Not reported
Operator Address:	2935 CACTUS RD
	CORPUS CHRISTI, TX 78415
Operator Address building:	Not reported
Contact Operator Name:	Red Kluck
Contact Operator title:	Env Mgr
Contact Operator Phone:	361-852-2266
Self-Certification date:	042402
Signature Name:	RED KLUCK
Signature Title Name:	Not reported
Signature Type Text:	Legally-Authorized Rep of Owner
Certification Submitted Type:	A
Registration Self-Certification Flag:	1
Fees Self-Certification Flag:	Not reported
Financial Assurance Self-Certification flag:	1
Technical standards Self-Certification flag:	1
UST Delivery Certificate Expiration Date:	20/03/05
Compartment letter:	A
Financial Responsibility Type:	Insurance or Risk Retention Group
Corrective Action Met Flag:	1
Third Party Met Flag:	1
Financial Assurance Beginning Date:	Not reported
Piping Design & Ext. Containment 3 :	Not reported
Piping Design & Ext. Containment 4 :	Not reported
Type of Piping :	B
Internal Tank Lining Date :	00/00/00
Pipe Connectors and Valves 1 :	1
Pipe Connectors and Valves 2 :	Not reported
Pipe Connectors and Valves 3 :	Not reported
Other Tank Corrosion Protection Text:	Not reported
Tank Corrosion Protection Variance :	No Variance
Pipe Corrosion Protection iii3 :	Not reported
Pipe Corrosion Protection Variance :	No Variance
Stage 2 Vapor Recry Equipment Status :	Not reported
Stage 1 Equipment Installed Date :	Not reported
Tank Tested :	Tested
Compartment Capacity :	0000000
Owner ID :	01665
Owner Name :	SUSSER PETROLEUM COMPANY LP

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

DATAFLEET 1961 (Continued)

EDR ID Number
EPA ID Number

Database(s)

U003424095

Owner Address : 2935 CACTUS RD
CORPUS CHRISTI, TX 78415
Owner Contact Telephone : 361-852-2266
Owner Contact Name: Red Kluck
Date Registration Form Received : 08/86/05
Facility Type : None of the above, or unidentified
Name of Facility Manager : Barnes
Title of Facility Manager : Not reported
Facility Manager Phone : 210-366-0960
Sign Name on Registration Form : J.R. BARNES
Title of Signer of Registration Form : PRES
Date of Signature on Registration Form : 040886
Facility in Ozone non-attainment area : Not reported

Facility ID: 0021792 Tank Installer: Not reported
Tank ID: 3 Installation Date: 01/01/84
Tank Emptied: No Status Date: Not reported
Capacity: 8000 Unit ID: 00055955

Tank Material of Construction: Steel
Pipe Material of Construction: Steel
Other Materials of Construction: Not reported
Tank Status: In Use
Tank Construction & Containment: Not reported
Tank Construction & Containment II: Single Wall
Pipe Construction & Containment: Not reported
Pipe Construction & Containment II: Single Wall
Other Construction & Containment: Not reported
Compartment Substance Stored: Gasoline
Compartment Other Substance: Not reported
Tank Release Detection Method: SIR (Stat. Inventory Reconciliation) and Inventory Cntr
Tank Release Method Detection II: Not reported
Tank Release Method Detection III: Not reported
Other Tank Release Method Detection: Not reported
Tank Release Detection Variance : No Variance
Pipe Release Detection Method: Auto. Line Leak Detector(3.0gph for pressure piping)
Pipe Release Detection Method II: SIR (Stat. Inventory Reconciliation) and Inventory Cntr
Other Pipe Release Detection Method : Not reported
Pipe Release Detection Variance : No Variance
Spill and Overfill Protection: Auto. Flow Restrictor Valve
Spill and Overfill Protection II: Tight-Fill Fitting
Spill and Overfill Protection III: Tight-Fill Fitting
Tank Corrosion Protection: Composite Tank (steel w/FRP laminate)
Pipe Corrosion Protection: Composite Tank (steel w/FRP laminate)
Other Corrosion Protection: Not reported
Vapor Recovery Equipment Status: Stage 2 Vapor Recovery Equipment Installed
Equipment Installed Date: 09/01/89
Equipment Installer: Not reported
Contractor Registration Number: Not reported
Tank Registration Date: 05/08/86
Installer License Number: Not reported
Operator Name: SUSSER PETROLEUM COMPANY LP
Operator Telephone number: Not reported
Operator Address: 2935 CACTUS RD
CORPUS CHRISTI, TX 78415
Operator Address building: Not reported
Contact Operator Name: Red Kluck

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

DATAFLEET 1961 (Continued)

U003424095

Contact Operator title: Env Mgr
 Contact Operator Phone: 361-852-2266
 Self-Certification date: 042402
 Signature Name: RED KLUCK
 Signature Title Name: Not reported
 Signature Type Text: Legally-Authorized Rep of Owner
 Certification Submitted Type: A
 Registration Self-Certification Flag: 1
 Fees Self-Certification Flag: Not reported
 Financial Assurance Self-Certification flag: 1
 Technical standards Self-Certification flag: 1
 UST Delivery Certificate Expiration Date: 20/03/05
 Compartment letter: A
 Financial Responsibility Type: Insurance or Risk Retention Group
 Corrective Action Met Flag: 1
 Third Party Met Flag: 1
 Financial Assurance Beginning Date: Not reported
 Piping Design & Ext. Containment 3 : Not reported
 Piping Design & Ext. Containment 4 : Not reported
 Type of Piping : B
 Internal Tank Lining Date : 00/00/00
 Pipe Connectors and Valves 1 : 1
 Pipe Connectors and Valves 2 : Not reported
 Pipe Connectors and Valves 3 : Not reported
 Other Tank Corrosion Protection Text: Not reported
 Tank Corrosion Protection Variance : No Variance
 Pipe Corrosion Protection iii3 : Not reported
 Pipe Corrosion Protection Variance : No Variance
 Stage 2 Vapor Recry Equipment Status : Not reported
 Stage 1 Equipment Installed Date : Not reported
 Tank Tested : Tested
 Compartment Capacity : 0000000
 Owner ID : 01665
 Owner Name : SUSSER PETROLEUM COMPANY LP
 Owner Address : 2935 CACTUS RD
 CORPUS CHRISTI, TX 78415
 Owner Contact Telephone : 361-852-2266
 Owner Contact Name: Red Kluck
 Date Registration Form Received : 08/86/05
 Facility Type : None of the above, or unidentified
 Name of Facility Manager : Barnes
 Title of Facility Manager : Not reported
 Facility Manager Phone : 210-366-0960
 Sign Name on Registration Form : J.R. BARNES
 Title of Signer of Registration Form : PRES
 Date of Signature on Registration Form : 040886
 Facility in Ozone non-attainment area : Not reported

A3
West
1/4-1/2
2202 ft.

QUALITY AUTO SERVICE, INC.
839 BASSE RD.
SAN ANTONIO, TX 78212

Ind. Haz Waste S103608966
N/A

Site 2 of 3 in cluster A

Relative:
Higher

TX IHW:
 Registration Number: 74711
 Registration Initial Notification Date: 02/23/1989
 Registration Last Amendment Date: 10/08/1998
 EPA Identification: TXD133458026

Actual:
728 ft.

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

QUALITY AUTO SERVICE, INC. (Continued)

S103608966

TNRCC Permit Number: Not reported
 Description of Facility Site Location: 839 Basse Rd., San Antonio, TX 78212
 Site Primary Standard Industrial Code: 75210
 Automobile Parking Services
 Automobile Parking Services
 Automobile Parking Services
 Automobile Parking Services
 Automobile Parking Services
 Registration is a Generator of Waste: Yes
 Registration is a Receivers of Waste: No
 Registration is a Transporter of Waste: No
 Registration is a Transfer Facility: No
 Mexican Facility: Does not represent a Maquiladora (Mexican Facility)
 Facility Status: Inactive
 Type of Generator: Non-industrial and/or municipal, CESQG
 Company Name: Quality Auto Service, Inc.
 Facility County: Not reported
 TNRCC Region: Not reported
 TNRCC Facility ID : Not reported
 Site Owner Tax ID : Not reported
 Site Location Lat/Long : Not reported
 Last Update to NOR Data : Not reported
 Ind. waste permit # : Not reported
 Mun waste permit # : Not reported
 Non Notifier : Not reported
 Facility is STEERS Reporter : Not reported
 Fac Req to Submit Annual Waste Summary Rpt : Not reported
 Facility Involved In Recycling: Not reported
 Mailing Address: 839 Basse Rd.
 San Antonio, TX 78212
 Mailing County: USA
 Mailing Add 3: Not reported
 Contact: Charles Mullunix
 Contact Telephone Number: 210-735-9171
 Registration Number: 74711
 Registration Initial Notification Date: 02/23/1989
 Registration Last Amendment Date: 02/14/2001
 EPA Identification: TXD133458026
 TNRCC Permit Number: 029079
 Description of Facility Site Location: 839 Basse Rd., San Antonio, TX 78212
 Site Primary Standard Industrial Code: 75210
 Automobile Parking Services
 Automobile Parking Services
 Automobile Parking Services
 Automobile Parking Services
 Automobile Parking Services
 Registration is a Generator of Waste: Yes
 Registration is a Receivers of Waste: No
 Registration is a Transporter of Waste: No
 Registration is a Transfer Facility: No

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

QUALITY AUTO SERVICE, INC. (Continued)

S103608966

Mexican Facility: Does not represent a Maquiladora (Mexican Facility)
Facility Status: Inactive
Type of Generator: Non-industrial and/or municipal, CESQG
Company Name: QUALITY AUTO SERVICE INC
Facility County: Not reported
TNRCC Region: Not reported
TNRCC Facility ID : 029079
Site Owner Tax ID : Not reported
Site Location Lat/Long : Not reported
Last Update to NOR Data : 20010323
Ind. waste permit # : Not reported
Mun waste permit # : Not reported
Non Notifier : No
Facility is STEERS Reporter : No
Fac Req to Submit Annual Waste Summary Rpt : No
Facility Involved In Recycling: No
Mailing Address: 839 Basse Rd.
San Antonio, TX 78212
Mailing County: USA
Mailing Add 3: Not reported
Contact: Charles Mullunix
Contact Telephone Number: 210-735-9171

Registration Number: 74711
Registration Initial Notification Date: 02/23/1989
Registration Last Amendment Date: 02/14/2001
EPA Identification: TXD133458026
TNRCC Permit Number: 029079
Description of Facility Site Location: 839 Basse Rd., San Antonio, TX 78212
Site Primary Standard Industrial Code: 75210
Automobile Parking
Services
Automobile Parking
Services
Automobile Parking
Services
Automobile Parking
Services
Registration is a Generator of Waste: Yes
Registration is a Receivers of Waste: No
Registration is a Transporter of Waste: No
Registration is a Transfer Facility: No
Mexican Facility: Does not represent a Maquiladora (Mexican Facility)
Facility Status: Inactive
Type of Generator: Non-industrial and/or municipal, CESQG
Company Name: QUALITY AUTO SERVICE INC
Facility County: Not reported
TNRCC Region: Not reported
TNRCC Facility ID : 029079
Site Owner Tax ID : Not reported
Site Location Lat/Long : Not reported
Last Update to NOR Data : 20010323
Ind. waste permit # : Not reported
Mun waste permit # : Not reported
Non Notifier : No
Facility is STEERS Reporter : No
Fac Req to Submit Annual Waste Summary Rpt : No

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

QUALITY AUTO SERVICE, INC. (Continued)

S103608966

Facility Involved In Recycling:	No
Mailing Address:	839 Basse Rd. San Antonio, TX 78212
Mailing County:	USA
Mailing Add 3:	Not reported
Contact:	Charles Mullunix
Contact Telephone Number:	210-735-9171
Registration Number:	74711
Registration Initial Notification Date:	02/23/1989
Registration Last Amendment Date:	10/08/1998
EPA Identification:	TXD133458026
TNRCC Permit Number:	Not reported
Description of Facility Site Location:	839 Basse Rd., San Antonio, TX 78212
Site Primary Standard Industrial Code:	75210
	Automobile Parking Services
	Automobile Parking Services
	Automobile Parking Services
	Automobile Parking Services
Registration is a Generator of Waste:	Yes
Registration is a Receivers of Waste:	No
Registration is a Transporter of Waste:	No
Registration is a Transfer Facility:	No
Mexican Facility:	Does not represent a Maquiladora (Mexican Facility)
Facility Status:	Inactive
Type of Generator:	Non-industrial and/or municipal, CESQG
Company Name:	Quality Auto Service, Inc.
Facility County:	Not reported
TNRCC Region:	Not reported
TNRCC Facility ID :	Not reported
Site Owner Tax ID :	Not reported
Site Location Lat/Long :	Not reported
Last Update to NOR Data :	Not reported
Ind. waste permit # :	Not reported
Mun waste permit # :	Not reported
Non Notifier :	Not reported
Facility is STEERS Reporter :	Not reported
Fac Req to Submit Annual Waste Summary Rpt :	Not reported
Facility Involved In Recycling:	Not reported
Mailing Address:	839 Basse Rd. San Antonio, TX 78212
Mailing County:	USA
Mailing Add 3:	Not reported
Contact:	Charles Mullunix
Contact Telephone Number:	210-735-9171

The TX IHW database may contain additional details for this site.
Please click here or contact your EDR Account Executive for more information.

MAP FINDINGS

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

Site

Database(s)

EDR ID Number
 EPA ID Number

A4
West
1/4-1/2
2202 ft.

QUALITY AUTO SERVICE INC
839 BASSE RD
SAN ANTONIO, TX 78212

RCRIS-SQG **1000289957**
FINDS **TXD133458026**

Site 3 of 3 in cluster A

Relative:
Higher

RCRIS:
 Owner: HILT MULLENNIX
 (210) 964-3506
 EPA ID: TXD133458026
 Contact: VERN VOLLMER
 (512) 732-2201
 Classification: Small Quantity Generator
 Used Oil Recyc: No
 TSDF Activities: Not reported
 Violation Status: No violations found

Actual:
728 ft.

FINDS:

Other Pertinent Environmental Activity Identified at Site:
 Facility Registry System (FRS)
 Resource Conservation and Recovery Act Information system (RCRAINFO)

B5
West
1/2-1
3487 ft.

NORTHSIDE AUTO PARTS
5906 SAN PEDRO
SAN ANTONIO, TX 78212

LUST **U003424233**
UST **N/A**

Site 1 of 4 in cluster B

Relative:
Higher

LUST:
 Facility ID: 0068117
 Facility Location: 5906 SAN PEDRO
 Reported Date: Not reported
 Entered Date: 3/28/96
 RPR Coordinator: XYZ
 Region: 13
 Region City ID: SAN ANTONIO
 LPST Id: 110732
 Responsible Party: WHITIS W L
 RP Contact: W L WHITIS
 RP Telephone: 210/342-9544
 County Code: 015
 RP Address: 5906 SAN PEDRO
 SAN ANTONIO, TX 78212
 Priority: NO GW IMPACT, NO APPARENT THREATS OR IMPACTS TO RECEPTORS
 Status: FINAL CONCURRENCE ISSUED, CASE CLOSED

Actual:
733 ft.

UST:

Facility ID:	0068117	Tank Installer:	Not reported
Tank ID:	1	Installation Date:	08/31/87
Tank Emptied:	No	Status Date:	03/13/96
Capacity:	1500	Unit ID:	00178288
Tank Material of Construction:	Not reported		
Pipe Material of Construction:	Not reported		
Other Materials of Construction:	Not reported		
Tank Status:	Permanently Filled In-Place		
Tank Construction & Containment:	Not reported		
Pipe Construction & Containment:	Not reported		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Not reported		

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

NORTHSIDE AUTO PARTS (Continued)

U003424233

Compartment Other Substance: UNKNOWN
Tank Release Detection Method: Not reported
Tank Release Method Detection II: Not reported
Tank Release Method Detection III: Not reported
Other Tank Release Method Detection: Not reported
Tank Release Detection Variance : No Variance
Pipe Release Detection Method: Not reported
Other Pipe Release Detection Method : Not reported
Pipe Release Detection Variance : No Variance
Spill and Overfill Protection: Not reported
Tank Corrosion Protection: Not reported
Pipe Corrosion Protection: Not reported
Other Corrosion Protection: Not reported
Vapor Recovery Equipment Status: Not reported
Equipment Installed Date: Not reported
Equipment Installer: Not reported
Contractor Registration Number: Not reported
Tank Registration Date: 12/30/95
Installer License Number: Not reported
Operator Name: Not reported
Operator Telephone number: Not reported
Operator Address:
Operator Address building: Not reported
Contact Operator Name:
Contact Operator title: Not reported
Contact Operator Phone: Not reported
Self-Certification date: Not reported
Signature Name: Not reported
Signature Title Name: Not reported
Signature Type Text: Not reported
Certification Submitted Type: Not reported
Registration Self-Certification Flag: Not reported
Fees Self-Certification Flag: Not reported
Financial Assurance Self-Certification flag: Not reported
Technical standards Self-Certification flag: Not reported
UST Delivery Certificate Expiration Date: Not reported
Compartment letter: Not reported
Financial Responsibility Type: Not reported
Corrective Action Met Flag: Not reported
Third Party Met Flag: Not reported
Financial Assurance Beginning Date: Not reported
Piping Design & Ext. Containment 3 : Not reported
Piping Design & Ext. Containment 4 : Not reported
Type of Piping : Not reported
Internal Tank Lining Date : 00/00/00
Pipe Connectors and Valves 1 : Not reported
Pipe Connectors and Valves 2 : Not reported
Pipe Connectors and Valves 3 : Not reported
Other Tank Corrosion Protection Text: Not reported
Tank Corrosion Protection Variance : No Variance
Pipe Corrosion Protection iii3 : Not reported
Pipe Corrosion Protection Variance : No Variance
Stage 2 Vapor Recry Equipment Status : Not reported
Stage 1 Equipment Installed Date : Not reported
Tank Tested : Not reported
Compartment Capacity : 0000000
Owner ID : Not reported

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

NORTHSIDE AUTO PARTS (Continued)

U003424233

Owner Name :	WHITIS W L		
Owner Address :	303 JEANETTE		
	SAN ANTONIO, TX 78216		
Owner Contact Telephone :	210-826-0052		
Owner Contact Name:	W. L. Whitis		
Date Registration Form Received :	30/95/12		
Facility Type :	Retail		
Name of Facility Manager :	Whitis		
Title of Facility Manager :	Not reported		
Facility Manager Phone :	210-826-0052		
Sign Name on Registration Form :	W. L. Whitis		
Title of Signer of Registration Form :	Owner		
Date of Signature on Registration Form :	123095		
Facility in Ozone non-attainment area :	Not reported		
Facility ID:	0068117	Tank Installer:	Not reported
Tank ID:	2	Installation Date:	08/31/87
Tank Emptied:	No	Status Date:	03/13/96
Capacity:	2000	Unit ID:	00178289
Tank Material of Construction:	Not reported		
Pipe Material of Construction:	Not reported		
Other Materials of Construction:	Not reported		
Tank Status:	Permanently Filled In-Place		
Tank Construction & Containment:	Not reported		
Pipe Construction & Containment:	Not reported		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Not reported		
Compartment Other Substance:	UNKNOWN		
Tank Release Detection Method:	Not reported		
Tank Release Method Detection II:	Not reported		
Tank Release Method Detection III:	Not reported		
Other Tank Release Method Detection:	Not reported		
Tank Release Detection Variance :	No Variance		
Pipe Release Detection Method:	Not reported		
Other Pipe Release Detection Method :	Not reported		
Pipe Release Detection Variance :	No Variance		
Spill and Overfill Protection:	Not reported		
Tank Corrosion Protection:	Not reported		
Pipe Corrosion Protection:	Not reported		
Other Corrosion Protection:	Not reported		
Vapor Recovery Equipment Status:	Not reported		
Equipment Installed Date:	Not reported		
Equipment Installer:	Not reported		
Contractor Registration Number:	Not reported		
Tank Registration Date:	12/30/95		
Installer License Number:	Not reported		
Operator Name:	Not reported		
Operator Telephone number:	Not reported		
Operator Address:			
Operator Address building:	Not reported		
Contact Operator Name:			
Contact Operator title:	Not reported		
Contact Operator Phone:	Not reported		
Self-Certification date:	Not reported		
Signature Name:	Not reported		
Signature Title Name:	Not reported		
Signature Type Text:	Not reported		

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

NORTHSIDE AUTO PARTS (Continued)

U003424233

Certification Submitted Type: Not reported
 Registration Self-Certification Flag: Not reported
 Fees Self-Certification Flag: Not reported
 Financial Assurance Self-Certification flag: Not reported
 Technical standards Self-Certification flag: Not reported
 UST Delivery Certificate Expiration Date: Not reported
 Compartment letter: Not reported
 Financial Responsibility Type: Not reported
 Corrective Action Met Flag: Not reported
 Third Party Met Flag: Not reported
 Financial Assurance Beginning Date: Not reported
 Piping Design & Ext. Containment 3 : Not reported
 Piping Design & Ext. Containment 4 : Not reported
 Type of Piping : Not reported
 Internal Tank Lining Date : 00/00/00
 Pipe Connectors and Valves 1 : Not reported
 Pipe Connectors and Valves 2 : Not reported
 Pipe Connectors and Valves 3 : Not reported
 Other Tank Corrosion Protection Text: Not reported
 Tank Corrosion Protection Variance : No Variance
 Pipe Corrosion Protection iii3 : Not reported
 Pipe Corrosion Protection Variance : No Variance
 Stage 2 Vapor Recry Equipment Status : Not reported
 Stage 1 Equipment Installed Date : Not reported
 Tank Tested : Not reported
 Compartment Capacity : 0000000
 Owner ID : Not reported
 Owner Name : WHITIS W L
 Owner Address : 303 JEANETTE
 SAN ANTONIO, TX 78216
 Owner Contact Telephone : 210-826-0052
 Owner Contact Name: W. L. Whitis
 Date Registration Form Received : 30/95/12
 Facility Type : Retail
 Name of Facility Manager : Whitis
 Title of Facility Manager : Not reported
 Facility Manager Phone : 210-826-0052
 Sign Name on Registration Form : W. L. Whitis
 Title of Signer of Registration Form : Owner
 Date of Signature on Registration Form : 123095
 Facility in Ozone non-attainment area : Not reported

**B6
 West
 1/2-1
 3507 ft.**

**STOP N GO 2086
 5811 SAN PEDRO AVE
 SAN ANTONIO, TX 78212**

**UST U003411802
 N/A**

Site 2 of 4 in cluster B

**Relative:
 Higher**

**Actual:
 735 ft.**

UST:
 Facility ID: 0024564 Tank Installer: Not reported
 Tank ID: 3 Installation Date: 01/01/85
 Tank Emptied: No Status Date: Not reported
 Capacity: 9728 Unit ID: 00063188
 Tank Material of Construction: Fiberglass-Reinforced Plastic (FRP)
 Pipe Material of Construction: Fiberglass-Reinforced Plastic (FRP)
 Other Materials of Construction: Not reported
 Tank Status: In Use
 Tank Construction & Containment: Single Wall
 Pipe Construction & Containment: Single Wall

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

STOP N GO 2086 (Continued)

U003411802

Other Construction & Containment:	Not reported
Compartment Substance Stored:	Gasoline
Compartment Other Substance:	Not reported
Tank Release Detection Method:	SIR (Stat. Inventory Reconciliation) and Inventory Cntr
Tank Release Method Detection II:	Not reported
Tank Release Method Detection III:	Not reported
Other Tank Release Method Detection:	Not reported
Tank Release Detection Variance :	No Variance
Pipe Release Detection Method:	SIR (Stat. Inventory Reconciliation) and Inventory Cntr
Pipe Release Detection Method II:	Auto. Line Leak Detector(3.0gph for pressure piping)
Other Pipe Release Detection Method :	Not reported
Pipe Release Detection Variance :	No Variance
Spill and Overfill Protection:	Automatic Delivery Shut-off Valve
Spill and Overfill Protection II:	Tight-Fill Fitting
Spill and Overfill Protection III:	Tight-Fill Fitting
Tank Corrosion Protection:	None
Pipe Corrosion Protection:	None
Pipe Corrosion Protection II:	External Coatings - Laminate/Tape/Wrap
Other Corrosion Protection:	Not reported
Vapor Recovery Equipment Status:	Stage 2 Vapor Recovery Equipment Installed
Equipment Installed Date:	Not reported
Equipment Installer:	Not reported
Contractor Registration Number:	Not reported
Tank Registration Date:	08/18/86
Installer License Number:	Not reported
Operator Name:	DIAMOND SHAMROCK REFINING AND MARKETING COMPANY
Operator Telephone number:	Not reported
Operator Address:	
	SAN ANTONIO, TX 78269 - 6000
Operator Address building:	PO BOX 696000
Contact Operator Name:	TERRY HANKINS
Contact Operator title:	O & E SPECIALIST
Contact Operator Phone:	713-812-3041
Self-Certification date:	082002
Signature Name:	RAY MCNIECE
Signature Title Name:	Not reported
Signature Type Text:	Legally-Authorized Rep of Owner
Certification Submitted Type:	A
Registration Self-Certification Flag:	1
Fees Self-Certification Flag:	Not reported
Financial Assurance Self-Certification flag:	1
Technical standards Self-Certification flag:	1
UST Delivery Certificate Expiration Date:	20/03/09
Compartment letter:	A
Financial Responsibility Type:	Financial Test
Corrective Action Met Flag:	1
Third Party Met Flag:	1
Financial Assurance Beginning Date:	06/30/93
Piping Design & Ext. Containment 3 :	Not reported
Piping Design & Ext. Containment 4 :	Not reported
Type of Piping :	A
Internal Tank Lining Date :	00/00/00
Pipe Connectors and Valves 1 :	3
Pipe Connectors and Valves 2 :	2
Pipe Connectors and Valves 3 :	1
Other Tank Corrosion Protection Text:	Not reported
Tank Corrosion Protection Variance :	No Variance

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

MAP FINDINGS

STOP N GO 2086 (Continued)

EDR ID Number
 EPA ID Number

Database(s)

Site

U003411802

Pipe Corrosion Protection iii3 : Not reported
 Pipe Corrosion Protection Variance : No Variance
 Stage 2 Vapor Recy Equipment Status : Not reported
 Stage 1 Equipment Installed Date : Not reported
 Tank Tested : Tested
 Compartment Capacity : 0000000
 Owner ID : 21599
 Owner Name : DIAMOND SHAMROCK REFINING AND MARKETING COMPANY
 Owner Address : SAN ANTONIO, TX 78269
 Owner Contact Telephone : 817-980-2138
 Owner Contact Name: BUNLUE BOONPITUCK
 Date Registration Form Received : 18/86/08
 Facility Type : Retail
 Name of Facility Manager : MCNIECE
 Title of Facility Manager : Not reported
 Facility Manager Phone : 210-592-4527
 Sign Name on Registration Form : WM CALVERT
 Title of Signer of Registration Form : GAS MKTG MGR
 Date of Signature on Registration Form : 081586
 Facility in Ozone non-attainment area : Not reported

Facility ID:	0024564	Tank Installer:	Not reported
Tank ID:	2	Installation Date:	01/01/85
Tank Emptied:	No	Status Date:	Not reported
Capacity:	9728	Unit ID:	00063189
Tank Material of Construction:	Fiberglass-Reinforced Plastic (FRP)		
Pipe Material of Construction:	Fiberglass-Reinforced Plastic (FRP)		
Other Materials of Construction:	Not reported		
Tank Status:	In Use		
Tank Construction & Containment:	Single Wall		
Pipe Construction & Containment:	Single Wall		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Gasoline		
Compartment Other Substance:	Not reported		
Tank Release Detection Method:	SIR (Stat. Inventory Reconciliation) and Inventory Cntr		
Tank Release Method Detection II:	Not reported		
Tank Release Method Detection III:	Not reported		
Other Tank Release Method Detection:	Not reported		
Tank Release Detection Variance :	No Variance		
Pipe Release Detection Method:	SIR (Stat. Inventory Reconciliation) and Inventory Cntr		
Pipe Release Detection Method II:	Auto. Line Leak Detector(3.0gph for pressure piping)		
Other Pipe Release Detection Method :	Not reported		
Pipe Release Detection Variance :	No Variance		
Spill and Overfill Protection:	Automatic Delivery Shut-off Valve		
Spill and Overfill Protection II:	Tight-Fill Fitting		
Spill and Overfill Protection III:	Tight-Fill Fitting		
Tank Corrosion Protection:	None		
Pipe Corrosion Protection:	None		
Other Corrosion Protection:	Not reported		
Vapor Recovery Equipment Status:	Stage 2 Vapor Recovery Equipment Installed		
Equipment Installed Date:	Not reported		
Equipment Installer:	Not reported		
Contractor Registration Number:	Not reported		
Tank Registration Date:	08/18/86		
Installer License Number:	Not reported		
Operator Name:	DIAMOND SHAMROCK REFINING AND MARKETING COMPANY		
Operator Telephone number:	Not reported		

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

STOP N GO 2086 (Continued)

U003411802

Operator Address: SAN ANTONIO, TX 78269 - 6000

Operator Address building: PO BOX 696000

Contact Operator Name: TERRY HANKINS

Contact Operator title: O & E SPECIALIST

Contact Operator Phone: 713-812-3041

Self-Certification date: 082002

Signature Name: RAY MCNIECE

Signature Title Name: Not reported

Signature Type Text: Legally-Authorized Rep of Owner

Certification Submitted Type: A

Registration Self-Certification Flag: 1

Fees Self-Certification Flag: Not reported

Financial Assurance Self-Certification flag: 1

Technical standards Self-Certification flag: 1

UST Delivery Certificate Expiration Date: 20/03/09

Compartment letter: A

Financial Responsibility Type: Financial Test

Corrective Action Met Flag: 1

Third Party Met Flag: 1

Financial Assurance Beginning Date: 06/30/93

Piping Design & Ext. Containment 3 : Not reported

Piping Design & Ext. Containment 4 : Not reported

Type of Piping : A

Internal Tank Lining Date : 00/00/00

Pipe Connectors and Valves 1 : 3

Pipe Connectors and Valves 2 : 2

Pipe Connectors and Valves 3 : 1

Other Tank Corrosion Protection Text: Not reported

Tank Corrosion Protection Variance : No Variance

Pipe Corrosion Protection iii3 : Not reported

Pipe Corrosion Protection Variance : No Variance

Stage 2 Vapor Recry Equipment Status : Not reported

Stage 1 Equipment Installed Date : Not reported

Tank Tested : Tested

Compartment Capacity : 0000000

Owner ID : 21599

Owner Name : DIAMOND SHAMROCK REFINING AND MARKETING COMPANY

Owner Address : SAN ANTONIO, TX 78269

Owner Contact Telephone : 817-980-2138

Owner Contact Name: BUNLUE BOONPITUCK

Date Registration Form Received : 18/86/08

Facility Type : Retail

Name of Facility Manager : MCNIECE

Title of Facility Manager : Not reported

Facility Manager Phone : 210-592-4527

Sign Name on Registration Form : WM CALVERT

Title of Signer of Registration Form : GAS MKTG MGR

Date of Signature on Registration Form : 081586

Facility in Ozone non-attainment area : Not reported

Facility ID: 0024564 Tank Installer: Not reported

Tank ID: 1 Installation Date: 01/01/85

Tank Emptied: No Status Date: Not reported

Capacity: 9728 Unit ID: 00063190

Tank Material of Construction: Fiberglass-Reinforced Plastic (FRP)

Pipe Material of Construction: Fiberglass-Reinforced Plastic (FRP)

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

MAP FINDINGS

STOP N GO 2086 (Continued)

EDR ID Number
 EPA ID Number

Database(s)

U003411802

<p>Other Materials of Construction: Tank Status: Tank Construction & Containment: Pipe Construction & Containment: Other Construction & Containment: Compartment Substance Stored: Compartment Other Substance: Tank Release Detection Method: Tank Release Method Detection II: Tank Release Method Detection III: Other Tank Release Method Detection: Tank Release Detection Variance : Pipe Release Detection Method: Pipe Release Detection Method II: Other Pipe Release Detection Method : Pipe Release Detection Variance : Spill and Overfill Protection: Spill and Overfill Protection II: Spill and Overfill Protection III: Tank Corrosion Protection: Pipe Corrosion Protection: Pipe Corrosion Protection II: Other Corrosion Protection: Vapor Recovery Equipment Status: Equipment Installed Date: Equipment Installer: Contractor Registration Number: Tank Registration Date: Installer License Number: Operator Name: Operator Telephone number: Operator Address: Operator Address building: Contact Operator Name: Contact Operator title: Contact Operator Phone: Self-Certification date: Signature Name: Signature Title Name: Signature Type Text: Certification Submitted Type: Registration Self-Certification Flag: Fees Self-Certification Flag: Financial Assurance Self-Certification flag: Technical standards Self-Certification flag: UST Delivery Certificate Expiration Date: Compartment letter: Financial Responsibility Type: Corrective Action Met Flag: Third Party Met Flag: Financial Assurance Beginning Date: Piping Design & Ext. Containment 3 : Piping Design & Ext. Containment 4 : Type of Piping : Internal Tank Lining Date : Pipe Connectors and Valves 1 :</p>	<p>Not reported In Use Single Wall Single Wall Not reported Gasoline Not reported SIR (Stat. Inventory Reconciliation) and Inventory Cntr Not reported Not reported Not reported No Variance SIR (Stat. Inventory Reconciliation) and Inventory Cntr Auto. Line Leak Detector(3.0gph for pressure piping) Not reported No Variance Automatic Delivery Shut-off Valve Tight-Fill Fitting Tight-Fill Fitting None None External Coatings - Laminate/Tape/Wrap Not reported Stage 2 Vapor Recovery Equipment Installed Not reported Not reported Not reported 08/18/86 Not reported DIAMOND SHAMROCK REFINING AND MARKETING COMPANY Not reported SAN ANTONIO, TX 78269 - 6000 PO BOX 696000 TERRY HANKINS O & E SPECIALIST 713-812-3041 082002 RAY MCNIECE Not reported Legally-Authorized Rep of Owner A 1 Not reported 1 1 20/03/09 A Financial Test 1 1 06/30/93 Not reported Not reported A 00/00/00 3</p>
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Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

MAP FINDINGS

STOP N GO 2086 (Continued)

EDR ID Number
 EPA ID Number

Database(s)

U003411802

Pipe Connectors and Valves 2 : 2
 Pipe Connectors and Valves 3 : 1
 Other Tank Corrosion Protection Text: Not reported
 Tank Corrosion Protection Variance : No Variance
 Pipe Corrosion Protection iii3 : Not reported
 Pipe Corrosion Protection Variance : No Variance
 Stage 2 Vapor Recry Equipment Status : Not reported
 Stage 1 Equipment Installed Date : Not reported
 Tank Tested : Tested
 Compartment Capacity : 0000000
 Owner ID : 21599
 Owner Name : DIAMOND SHAMROCK REFINING AND MARKETING COMPANY
 Owner Address : SAN ANTONIO, TX 78269
 Owner Contact Telephone : 817-980-2138
 Owner Contact Name: BUNLUE BOONPITUCK
 Date Registration Form Received : 18/86/08
 Facility Type : Retail
 Name of Facility Manager : MCNIECE
 Title of Facility Manager : Not reported
 Facility Manager Phone : 210-592-4527
 Sign Name on Registration Form : WM CALVERT
 Title of Signer of Registration Form : GAS MKTG MGR
 Date of Signature on Registration Form : 081586
 Facility in Ozone non-attainment area : Not reported

B7
West
1/2-1
3507 ft.

U-HAUL REPAIR
5810 SAN PEDRO AVE
SAN ANTONIO, TX 78212

RCRIS-SQG 1004783203
FINDS TX0000034744

Site 3 of 4 in cluster B

Relative:
Higher

RCRIS:
 Owner: AMERCO CORP
 (800) 528-0463
 EPA ID: TX0000034744
 Contact: HARRY SANCHEZ
 (210) 731-2820

Actual:
735 ft.

Classification: Conditionally Exempt Small Quantity Generator
 Used Oil Recyc: No
 TSDF Activities: Not reported
 Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site:
 Facility Registry System (FRS)
 Resource Conservation and Recovery Act Information system (RCRAINFO)

MAP FINDINGS

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

Site

Database(s)

EDR ID Number
 EPA ID Number

B8
West
1/2-1
3507 ft.

SAN PEDRO U HAUL CTR 74480
5810 SAN PEDRO
SAN ANTONIO, TX 78212

UST **U003423901**
N/A

Site 4 of 4 in cluster B

Relative:
Higher

UST:

Actual:
735 ft.

Facility ID:	0036412	Tank Installer:	Not reported
Tank ID:	2	Installation Date:	01/01/83
Tank Emptied:	No	Status Date:	06/11/96
Capacity:	4000	Unit ID:	00096305
Tank Material of Construction:	Steel		
Pipe Material of Construction:	Not reported		
Other Materials of Construction:	Not reported		
Tank Status:	Removed from the Ground		
Tank Construction & Containment:	Single Wall		
Pipe Construction & Containment:	Not reported		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Diesel		
Compartment Other Substance:	Not reported		
Tank Release Detection Method:	Not reported		
Tank Release Method Detection II:	Not reported		
Tank Release Method Detection III:	Not reported		
Other Tank Release Method Detection:	Inventory Control		
Tank Release Detection Variance :	No Variance		
Pipe Release Detection Method:	Auto. Line Leak Detector(3.0gph for pressure piping)		
Other Pipe Release Detection Method :	Tightness Testing		
Pipe Release Detection Variance :	No Variance		
Spill and Overfill Protection:	Not reported		
Tank Corrosion Protection:	Not reported		
Pipe Corrosion Protection:	External Coatings - Laminate/Tape/Wrap		
Other Corrosion Protection:	Non Corrodible Material		
Vapor Recovery Equipment Status:	Not reported		
Equipment Installed Date:	Not reported		
Equipment Installer:	Not reported		
Contractor Registration Number:	Not reported		
Tank Registration Date:	05/08/86		
Installer License Number:	Not reported		
Operator Name:	Not reported		
Operator Telephone number:	Not reported		
Operator Address:			
Operator Address building:	Not reported		
Contact Operator Name:			
Contact Operator title:	Not reported		
Contact Operator Phone:	Not reported		
Self-Certification date:	Not reported		
Signature Name:	Not reported		
Signature Title Name:	Not reported		
Signature Type Text:	Not reported		
Certification Submitted Type:	Not reported		
Registration Self-Certification Flag:	Not reported		
Fees Self-Certification Flag:	Not reported		
Financial Assurance Self-Certification flag:	Not reported		
Technical standards Self-Certification flag:	Not reported		
UST Delivery Certificate Expiration Date:	Not reported		
Compartment letter:	Not reported		
Financial Responsibility Type:	Not reported		
Corrective Action Met Flag:	Not reported		
Third Party Met Flag:	Not reported		

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

SAN PEDRO U HAUL CTR 74480 (Continued)

U003423901

Financial Assurance Beginning Date:	Not reported		
Piping Design & Ext. Containment 3 :	Not reported		
Piping Design & Ext. Containment 4 :	Not reported		
Type of Piping :	Not reported		
Internal Tank Lining Date :	00/00/00		
Pipe Connectors and Valves 1 :	Not reported		
Pipe Connectors and Valves 2 :	Not reported		
Pipe Connectors and Valves 3 :	Not reported		
Other Tank Corrosion Protection Text:	Not reported		
Tank Corrosion Protection Variance :	No Variance		
Pipe Corrosion Protection iii3 :	Not reported		
Pipe Corrosion Protection Variance :	No Variance		
Stage 2 Vapor Recry Equipment Status :	Not reported		
Stage 1 Equipment Installed Date :	Not reported		
Tank Tested :	Not reported		
Compartment Capacity :	0000000		
Owner ID :	Not reported		
Owner Name :	U-HAUL CO OF SAN ANTONIO		
Owner Address :	5810 SAN PEDRO		
	SAN ANTONIO, TX 78212		
Owner Contact Telephone :	512-731-2805		
Owner Contact Name:	HORACE ROYAL		
Date Registration Form Received :	08/86/05		
Facility Type :	Fleet Refueling		
Name of Facility Manager :	JOHN BAULET		
Title of Facility Manager :	Not reported		
Facility Manager Phone :	5123498008		
Sign Name on Registration Form :	RICHARD FELTER		
Title of Signer of Registration Form :	GEN MGR.		
Date of Signature on Registration Form :	031786		
Facility in Ozone non-attainment area :	Not reported		
Facility ID:	0036412	Tank Installer:	Not reported
Tank ID:	1	Installation Date:	01/01/83
Tank Emptied:	No	Status Date:	06/11/96
Capacity:	4000	Unit ID:	00096306
Tank Material of Construction:	Steel		
Pipe Material of Construction:	Not reported		
Other Materials of Construction:	Not reported		
Tank Status:	Removed from the Ground		
Tank Construction & Containment:	Single Wall		
Pipe Construction & Containment:	Not reported		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Diesel		
Compartment Other Substance:	Not reported		
Tank Release Detection Method:	Not reported		
Tank Release Method Detection II:	Not reported		
Tank Release Method Detection III:	Not reported		
Other Tank Release Method Detection:	Inventory Control		
Tank Release Detection Variance :	No Variance		
Pipe Release Detection Method:	Auto. Line Leak Detector(3.0gph for pressure piping)		
Other Pipe Release Detection Method :	Tightness Testing		
Pipe Release Detection Variance :	No Variance		
Spill and Overfill Protection:	Not reported		
Tank Corrosion Protection:	Not reported		
Pipe Corrosion Protection:	External Coatings - Laminate/Tape/Wrap		
Other Corrosion Protection:	Non Corrodible Material		

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

SAN PEDRO U HAUL CTR 74480 (Continued)

U003423901

Vapor Recovery Equipment Status: Not reported
Equipment Installed Date: Not reported
Equipment Installer: Not reported
Contractor Registration Number: Not reported
Tank Registration Date: 05/08/86
Installer License Number: Not reported
Operator Name: Not reported
Operator Telephone number: Not reported
Operator Address:
Operator Address building: Not reported
Contact Operator Name:
Contact Operator title: Not reported
Contact Operator Phone: Not reported
Self-Certification date: Not reported
Signature Name: Not reported
Signature Title Name: Not reported
Signature Type Text: Not reported
Certification Submitted Type: Not reported
Registration Self-Certification Flag: Not reported
Fees Self-Certification Flag: Not reported
Financial Assurance Self-Certification flag: Not reported
Technical standards Self-Certification flag: Not reported
UST Delivery Certificate Expiration Date: Not reported
Compartment letter: Not reported
Financial Responsibility Type: Not reported
Corrective Action Met Flag: Not reported
Third Party Met Flag: Not reported
Financial Assurance Beginning Date: Not reported
Piping Design & Ext. Containment 3 : Not reported
Piping Design & Ext. Containment 4 : Not reported
Type of Piping : Not reported
Internal Tank Lining Date : 00/00/00
Pipe Connectors and Valves 1 : Not reported
Pipe Connectors and Valves 2 : Not reported
Pipe Connectors and Valves 3 : Not reported
Other Tank Corrosion Protection Text: None
Tank Corrosion Protection Variance : No Variance
Pipe Corrosion Protection iii3 : Not reported
Pipe Corrosion Protection Variance : No Variance
Stage 2 Vapor Recry Equipment Status : Not reported
Stage 1 Equipment Installed Date : Not reported
Tank Tested : Not reported
Compartment Capacity : 0000000
Owner ID : Not reported
Owner Name : U-HAUL CO OF SAN ANTONIO
Owner Address : 5810 SAN PEDRO
SAN ANTONIO, TX 78212
Owner Contact Telephone : 512-731-2805
Owner Contact Name: HORACE ROYAL
Date Registration Form Received : 08/86/05
Facility Type : Fleet Refueling
Name of Facility Manager : JOHN BAULET
Title of Facility Manager : Not reported
Facility Manager Phone : 5123498008
Sign Name on Registration Form : RICHARD FELTER
Title of Signer of Registration Form : GEN MGR.
Date of Signature on Registration Form : 031786

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

MAP FINDINGS

SAN PEDRO U HAUL CTR 74480 (Continued)

EDR ID Number
 EPA ID Number

Database(s)

U003423901

Facility in Ozone non-attainment area :	Not reported		
Facility ID:	0036412	Tank Installer:	Not reported
Tank ID:	3	Installation Date:	08/31/87
Tank Emptied:	No	Status Date:	06/11/96
Capacity:	550	Unit ID:	00096307
Tank Material of Construction:	Steel		
Pipe Material of Construction:	Not reported		
Other Materials of Construction:	Not reported		
Tank Status:	Removed from the Ground		
Tank Construction & Containment:	Single Wall		
Pipe Construction & Containment:	Not reported		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Diesel		
Compartment Other Substance:	Not reported		
Tank Release Detection Method:	Not reported		
Tank Release Method Detection II:	Not reported		
Tank Release Method Detection III:	Not reported		
Other Tank Release Method Detection:	Inventory Control		
Tank Release Detection Variance :	No Variance		
Pipe Release Detection Method:	Auto. Line Leak Detector(3.0gph for pressure piping)		
Other Pipe Release Detection Method :	Tightness Testing		
Pipe Release Detection Variance :	No Variance		
Spill and Overfill Protection:	Not reported		
Tank Corrosion Protection:	Not reported		
Pipe Corrosion Protection:	Not reported		
Other Corrosion Protection:	None		
Vapor Recovery Equipment Status:	Not reported		
Equipment Installed Date:	Not reported		
Equipment Installer:	Not reported		
Contractor Registration Number:	Not reported		
Tank Registration Date:	05/08/86		
Installer License Number:	Not reported		
Operator Name:	Not reported		
Operator Telephone number:	Not reported		
Operator Address:	Not reported		
Operator Address building:	Not reported		
Contact Operator Name:	Not reported		
Contact Operator title:	Not reported		
Contact Operator Phone:	Not reported		
Self-Certification date:	Not reported		
Signature Name:	Not reported		
Signature Title Name:	Not reported		
Signature Type Text:	Not reported		
Certification Submitted Type:	Not reported		
Registration Self-Certification Flag:	Not reported		
Fees Self-Certification Flag:	Not reported		
Financial Assurance Self-Certification flag:	Not reported		
Technical standards Self-Certification flag:	Not reported		
UST Delivery Certificate Expiration Date:	Not reported		
Compartment letter:	Not reported		
Financial Responsibility Type:	Not reported		
Corrective Action Met Flag:	Not reported		
Third Party Met Flag:	Not reported		
Financial Assurance Beginning Date:	Not reported		
Piping Design & Ext. Containment 3 :	Not reported		
Piping Design & Ext. Containment 4 :	Not reported		

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

SAN PEDRO U HAUL CTR 74480 (Continued)

U003423901

Type of Piping : Not reported
 Internal Tank Lining Date : 00/00/00
 Pipe Connectors and Valves 1 : Not reported
 Pipe Connectors and Valves 2 : Not reported
 Pipe Connectors and Valves 3 : Not reported
 Other Tank Corrosion Protection Text: None
 Tank Corrosion Protection Variance : No Variance
 Pipe Corrosion Protection iii3 : Not reported
 Pipe Corrosion Protection Variance : No Variance
 Stage 2 Vapor Recry Equipment Status : Not reported
 Stage 1 Equipment Installed Date : Not reported
 Tank Tested : Not reported
 Compartment Capacity : 0000000
 Owner ID : Not reported
 Owner Name : U-HAUL CO OF SAN ANTONIO
 Owner Address : 5810 SAN PEDRO
 SAN ANTONIO, TX 78212
 Owner Contact Telephone : 512-731-2805
 Owner Contact Name: HORACE ROYAL
 Date Registration Form Received : 08/86/05
 Facility Type : Fleet Refueling
 Name of Facility Manager : JOHN BAULET
 Title of Facility Manager : Not reported
 Facility Manager Phone : 5123498008
 Sign Name on Registration Form : RICHARD FELTER
 Title of Signer of Registration Form : GEN MGR.
 Date of Signature on Registration Form : 031786
 Facility in Ozone non-attainment area : Not reported

9
NNW
1/2-1
3582 ft.

OLMOS BASIN GOLF COURSE
7022 MCCULLOUGH AVE
SAN ANTONIO, TX 78216

LUST U003411498
UST N/A

Relative:
Higher

LUST:

Facility ID: 0014151
 Facility Location: 7122 MCCULLOUGH
 Reported Date: 7/12/89
 Entered Date: 7/25/89
 RPR Coordinator: RPR
 Region: 13
 Region City ID: SAN ANTONIO
 LPST Id: 093297
 Responsible Party: CITY OF SAN ANTONIO
 RP Contact: BOB SCHREIBER
 RP Telephone: 512/299-8380
 County Code: 015
 RP Address: 224 NEVADA
 SAN ANTONIO, TX 78203
 Priority: SOIL CONTAMINATION ONLY, REQUIRES FULL SITE ASSESSMENT & RAP
 Status: FINAL CONCURRENCE ISSUED, CASE CLOSED

Actual:
761 ft.

UST:

Facility ID: 0014151
 Tank ID: 59
 Tank Emptied: No
 Capacity: 500
 Tank Material of Construction: Steel
 Tank Installer: Not reported
 Installation Date: 01/01/76
 Status Date: 07/31/89
 Unit ID: 00036468

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

OLMOS BASIN GOLF COURSE (Continued)

U003411498

Pipe Material of Construction:	Steel
Other Materials of Construction:	Not reported
Tank Status:	Removed from the Ground
Tank Construction & Containment:	Not reported
Pipe Construction & Containment:	Not reported
Other Construction & Containment:	Not reported
Compartment Substance Stored:	Gasoline
Compartment Other Substance:	Not reported
Tank Release Detection Method:	Not reported
Tank Release Method Detection II:	Not reported
Tank Release Method Detection III:	Not reported
Other Tank Release Method Detection:	None
Tank Release Detection Variance :	No Variance
Pipe Release Detection Method:	Not reported
Other Pipe Release Detection Method :	None
Pipe Release Detection Variance :	No Variance
Spill and Overfill Protection:	Not reported
Tank Corrosion Protection:	Not reported
Pipe Corrosion Protection:	Not reported
Other Corrosion Protection:	None
Vapor Recovery Equipment Status:	Not reported
Equipment Installed Date:	Not reported
Equipment Installer:	Not reported
Contractor Registration Number:	Not reported
Tank Registration Date:	05/08/86
Installer License Number:	Not reported
Operator Name:	CITY OF SAN ANTONIO AUTO OP
Operator Telephone number:	Not reported
Operator Address:	329 S FRIO
	SAN ANTONIO, TX 78207
Operator Address building:	Not reported
Contact Operator Name:	PAUL R GARZA
Contact Operator title:	FLEET ADMIN
Contact Operator Phone:	210-207-8380
Self-Certification date:	121202
Signature Name:	James D Goode
Signature Title Name:	Fleet Operations Adm
Signature Type Text:	Legally-Authorized Rep of Owner
Certification Submitted Type:	A
Registration Self-Certification Flag:	1
Fees Self-Certification Flag:	Not reported
Financial Assurance Self-Certification flag:	1
Technical standards Self-Certification flag:	1
UST Delivery Certificate Expiration Date:	20/04/03
Compartment letter:	A
Financial Responsibility Type:	Bond Rating Test
Corrective Action Met Flag:	1
Third Party Met Flag:	1
Financial Assurance Beginning Date:	Not reported
Piping Design & Ext. Containment 3 :	Not reported
Piping Design & Ext. Containment 4 :	Not reported
Type of Piping :	Not reported
Internal Tank Lining Date :	00/00/00
Pipe Connectors and Valves 1 :	Not reported
Pipe Connectors and Valves 2 :	Not reported
Pipe Connectors and Valves 3 :	Not reported

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

OLMOS BASIN GOLF COURSE (Continued)

U003411498

Other Tank Corrosion Protection Text:	Not reported		
Tank Corrosion Protection Variance :	No Variance		
Pipe Corrosion Protection iii3 :	Not reported		
Pipe Corrosion Protection Variance :	No Variance		
Stage 2 Vapor Recry Equipment Status :	Not reported		
Stage 1 Equipment Installed Date :	Not reported		
Tank Tested :	Not reported		
Compartment Capacity :	0000000		
Owner ID :	06803		
Owner Name :	CITY OF SAN ANTONIO		
Owner Address :	329 S FRIO		
	SAN ANTONIO, TX 78207		
Owner Contact Telephone :	210-207-8380		
Owner Contact Name:	JAMES D GOODE		
Date Registration Form Received :	08/86/05		
Facility Type :	None of the above, or unidentified		
Name of Facility Manager :	ORTIZ		
Title of Facility Manager :	GOLF SUPV		
Facility Manager Phone :	210-804-0713		
Sign Name on Registration Form :	EMERY C LAPOINT		
Title of Signer of Registration Form :	VEH & EQUIP OPER MGR		
Date of Signature on Registration Form :	041586		
Facility in Ozone non-attainment area :	Not reported		
Facility ID:	0014151	Tank Installer:	Not reported
Tank ID:	58	Installation Date:	01/01/62
Tank Emptied:	No	Status Date:	07/31/89
Capacity:	500	Unit ID:	00036469
Tank Material of Construction:	Steel		
Pipe Material of Construction:	Steel		
Other Materials of Construction:	Not reported		
Tank Status:	Removed from the Ground		
Tank Construction & Containment:	Not reported		
Pipe Construction & Containment:	Not reported		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Gasoline		
Compartment Other Substance:	Not reported		
Tank Release Detection Method:	Not reported		
Tank Release Method Detection II:	Not reported		
Tank Release Method Detection III:	Not reported		
Other Tank Release Method Detection:	None		
Tank Release Detection Variance :	No Variance		
Pipe Release Detection Method:	Not reported		
Other Pipe Release Detection Method :	None		
Pipe Release Detection Variance :	No Variance		
Spill and Overfill Protection:	Not reported		
Tank Corrosion Protection:	Not reported		
Pipe Corrosion Protection:	Not reported		
Other Corrosion Protection:	None		
Vapor Recovery Equipment Status:	Not reported		
Equipment Installed Date:	Not reported		
Equipment Installer:	Not reported		
Contractor Registration Number:	Not reported		
Tank Registration Date:	05/08/86		
Installer License Number:	Not reported		
Operator Name:	CITY OF SAN ANTONIO AUTO OP		
Operator Telephone number:	Not reported		

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

OLMOS BASIN GOLF COURSE (Continued)

U003411498

Operator Address:	329 S FRIO		
	SAN ANTONIO, TX 78207		
Operator Address building:	Not reported		
Contact Operator Name:	PAUL R GARZA		
Contact Operator title:	FLEET ADMIN		
Contact Operator Phone:	210-207-8380		
Self-Certification date:	121202		
Signature Name:	James D Goode		
Signature Title Name:	Fleet Operations Adm		
Signature Type Text:	Legally-Authorized Rep of Owner		
Certification Submitted Type:	A		
Registration Self-Certification Flag:	1		
Fees Self-Certification Flag:	Not reported		
Financial Assurance Self-Certification flag:	1		
Technical standards Self-Certification flag:	1		
UST Delivery Certificate Expiration Date:	20/04/03		
Compartment letter:	A		
Financial Responsibility Type:	Bond Rating Test		
Corrective Action Met Flag:	1		
Third Party Met Flag:	1		
Financial Assurance Beginning Date:	Not reported		
Piping Design & Ext. Containment 3 :	Not reported		
Piping Design & Ext. Containment 4 :	Not reported		
Type of Piping :	Not reported		
Internal Tank Lining Date :	00/00/00		
Pipe Connectors and Valves 1 :	Not reported		
Pipe Connectors and Valves 2 :	Not reported		
Pipe Connectors and Valves 3 :	Not reported		
Other Tank Corrosion Protection Text:	Not reported		
Tank Corrosion Protection Variance :	No Variance		
Pipe Corrosion Protection iii3 :	Not reported		
Pipe Corrosion Protection Variance :	No Variance		
Stage 2 Vapor Recry Equipment Status :	Not reported		
Stage 1 Equipment Installed Date :	Not reported		
Tank Tested :	Not reported		
Compartment Capacity :	0000000		
Owner ID :	06803		
Owner Name :	CITY OF SAN ANTONIO		
Owner Address :	329 S FRIO		
	SAN ANTONIO, TX 78207		
Owner Contact Telephone :	210-207-8380		
Owner Contact Name:	JAMES D GOODE		
Date Registration Form Received :	08/86/05		
Facility Type :	None of the above, or unidentified		
Name of Facility Manager :	ORTIZ		
Title of Facility Manager :	GOLF SUPV		
Facility Manager Phone :	210-804-0713		
Sign Name on Registration Form :	EMERY C LAPOINT		
Title of Signer of Registration Form :	VEH & EQUIP OPER MGR		
Date of Signature on Registration Form :	041586		
Facility in Ozone non-attainment area :	Not reported		
Facility ID:	0014151	Tank Installer:	Not reported
Tank ID:	2	Installation Date:	04/01/91
Tank Emptied:	No	Status Date:	Not reported
Capacity:	1000	Unit ID:	00036470

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

OLMOS BASIN GOLF COURSE (Continued)

U003411498

Tank Material of Construction:	Composite (steel with FRP laminate)
Pipe Material of Construction:	Fiberglass-Reinforced Plastic (FRP)
Other Materials of Construction:	Not reported
Tank Status:	In Use
Tank Construction & Containment:	Single Wall
Pipe Construction & Containment:	Single Wall
Other Construction & Containment:	Not reported
Compartment Substance Stored:	Gasoline
Compartment Other Substance:	Not reported
Tank Release Detection Method:	Not reported
Tank Release Method Detection II:	Not reported
Tank Release Method Detection III:	Not reported
Other Tank Release Method Detection:	None
Tank Release Detection Variance :	No Variance
Pipe Release Detection Method:	Not reported
Other Pipe Release Detection Method :	None
Pipe Release Detection Variance :	No Variance
Spill and Overfill Protection:	Not reported
Tank Corrosion Protection:	Noncorrodible Material (c.g. FRP)
Pipe Corrosion Protection:	None
Other Corrosion Protection:	Non Corrodible Material
Vapor Recovery Equipment Status:	No Stage 2 Vapor Recovery Equipment
Equipment Installed Date:	Not reported
Equipment Installer:	Not reported
Contractor Registration Number:	Not reported
Tank Registration Date:	05/08/86
Installer License Number:	Not reported
Operator Name:	CITY OF SAN ANTONIO AUTO OP
Operator Telephone number:	Not reported
Operator Address:	329 S FRIO
	SAN ANTONIO, TX 78207
Operator Address building:	Not reported
Contact Operator Name:	PAUL R GARZA
Contact Operator title:	FLEET ADMIN
Contact Operator Phone:	210-207-8380
Self-Certification date:	121202
Signature Name:	James D Goode
Signature Title Name:	Fleet Operations Adm
Signature Type Text:	Legally-Authorized Rep of Owner
Certification Submitted Type:	A
Registration Self-Certification Flag:	1
Fees Self-Certification Flag:	Not reported
Financial Assurance Self-Certification flag:	1
Technical standards Self-Certification flag:	1
UST Delivery Certificate Expiration Date:	20/04/03
Compartment letter:	A
Financial Responsibility Type:	Bond Rating Test
Corrective Action Met Flag:	1
Third Party Met Flag:	1
Financial Assurance Beginning Date:	Not reported
Piping Design & Ext. Containment 3 :	Not reported
Piping Design & Ext. Containment 4 :	Not reported
Type of Piping :	A
Internal Tank Lining Date :	00/00/00
Pipe Connectors and Valves 1 :	3
Pipe Connectors and Valves 2 :	1

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

OLMOS BASIN GOLF COURSE (Continued)

U003411498

Pipe Connectors and Valves 3 :	Not reported		
Other Tank Corrosion Protection Text:	Not reported		
Tank Corrosion Protection Variance :	No Variance		
Pipe Corrosion Protection iii3 :	Not reported		
Pipe Corrosion Protection Variance :	No Variance		
Stage 2 Vapor Recry Equipment Status :	Not reported		
Stage 1 Equipment Installed Date :	Not reported		
Tank Tested :	Not reported		
Compartment Capacity :	0000000		
Owner ID :	06803		
Owner Name :	CITY OF SAN ANTONIO		
Owner Address :	329 S FRIO		
	SAN ANTONIO, TX 78207		
Owner Contact Telephone :	210-207-8380		
Owner Contact Name:	JAMES D GOODE		
Date Registration Form Received :	08/86/05		
Facility Type :	None of the above, or unidentified		
Name of Facility Manager :	ORTIZ		
Title of Facility Manager :	GOLF SUPV		
Facility Manager Phone :	210-804-0713		
Sign Name on Registration Form :	EMERY C LAPOINT		
Title of Signer of Registration Form :	VEH & EQUIP OPER MGR		
Date of Signature on Registration Form :	041586		
Facility in Ozone non-attainment area :	Not reported		
Facility ID:	0014151	Tank Installer:	Not reported
Tank ID:	1	Installation Date:	04/01/91
Tank Emptied:	No	Status Date:	Not reported
Capacity:	1000	Unit ID:	00036471
Tank Material of Construction:	Composite (steel with FRP laminate)		
Pipe Material of Construction:	Fiberglass-Reinforced Plastic (FRP)		
Other Materials of Construction:	Not reported		
Tank Status:	In Use		
Tank Construction & Containment:	Single Wall		
Pipe Construction & Containment:	Single Wall		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Gasoline		
Compartment Other Substance:	Not reported		
Tank Release Detection Method:	Not reported		
Tank Release Method Detection II:	Not reported		
Tank Release Method Detection III:	Not reported		
Other Tank Release Method Detection:	None		
Tank Release Detection Variance :	No Variance		
Pipe Release Detection Method:	Not reported		
Other Pipe Release Detection Method :	None		
Pipe Release Detection Variance :	No Variance		
Spill and Overfill Protection:	Not reported		
Tank Corrosion Protection:	Noncorrodible Material (c.g. FRP)		
Pipe Corrosion Protection:	None		
Other Corrosion Protection:	Non Corrodible Material		
Vapor Recovery Equipment Status:	Stage 2 Vapor Recovery Equipment Installed		
Equipment Installed Date:	04/29/91		
Equipment Installer:	Not reported		
Contractor Registration Number:	Not reported		
Tank Registration Date:	05/08/86		
Installer License Number:	Not reported		
Operator Name:	CITY OF SAN ANTONIO AUTO OP		

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

OLMOS BASIN GOLF COURSE (Continued)

U003411498

Operator Telephone number: Not reported
Operator Address: 329 S FRIO
SAN ANTONIO, TX 78207
Operator Address building: Not reported
Contact Operator Name: PAUL R GARZA
Contact Operator title: FLEET ADMIN
Contact Operator Phone: 210-207-8380
Self-Certification date: 121202
Signature Name: James D Goode
Signature Title Name: Fleet Operations Adm
Signature Type Text: Legally-Authorized Rep of Owner
Certification Submitted Type: A
Registration Self-Certification Flag: 1
Fees Self-Certification Flag: Not reported
Financial Assurance Self-Certification flag: 1
Technical standards Self-Certification flag: 1
UST Delivery Certificate Expiration Date: 20/04/03
Compartment letter: A
Financial Responsibility Type: Bond Rating Test
Corrective Action Met Flag: 1
Third Party Met Flag: 1
Financial Assurance Beginning Date: Not reported
Piping Design & Ext. Containment 3 : Not reported
Piping Design & Ext. Containment 4 : Not reported
Type of Piping : A
Internal Tank Lining Date : 00/00/00
Pipe Connectors and Valves 1 : 3
Pipe Connectors and Valves 2 : 1
Pipe Connectors and Valves 3 : Not reported
Other Tank Corrosion Protection Text: Not reported
Tank Corrosion Protection Variance : No Variance
Pipe Corrosion Protection iii3 : Not reported
Pipe Corrosion Protection Variance : No Variance
Stage 2 Vapor Recry Equipment Status : Not reported
Stage 1 Equipment Installed Date : Not reported
Tank Tested : Not reported
Compartment Capacity : 0000000
Owner ID : 06803
Owner Name : CITY OF SAN ANTONIO
Owner Address : 329 S FRIO
SAN ANTONIO, TX 78207
Owner Contact Telephone : 210-207-8380
Owner Contact Name: JAMES D GOODE
Date Registration Form Received : 08/86/05
Facility Type : None of the above, or unidentified
Name of Facility Manager : ORTIZ
Title of Facility Manager : GOLF SUPV
Facility Manager Phone : 210-804-0713
Sign Name on Registration Form : EMERY C LAPOINT
Title of Signer of Registration Form : VEH & EQUIP OPER MGR
Date of Signature on Registration Form : 041586
Facility in Ozone non-attainment area : Not reported

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

MAP FINDINGS

OLMOS BASIN GOLF COURSE (Continued)

EDR ID Number
 EPA ID Number

Database(s)

U003411498

**10
 NW
 1/2-1
 3661 ft.**

**DBA DIXON BROS AUTO CENTER
 210 JACKSON-KELLER
 SAN ANTONIO, TX 78216**

**UST U003424220
 N/A**

**Relative:
 Higher**

UST:

**Actual:
 741 ft.**

Facility ID:	0067586	Tank Installer:	Not reported
Tank ID:	1	Installation Date:	08/31/87
Tank Emptied:	No	Status Date:	09/26/95
Capacity:	550	Unit ID:	00177112
Tank Material of Construction:	Not reported		
Pipe Material of Construction:	Not reported		
Other Materials of Construction:	Not reported		
Tank Status:	Removed from the Ground		
Tank Construction & Containment:	Not reported		
Pipe Construction & Containment:	Not reported		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Not reported		
Compartment Other Substance:	UNKNOWN		
Tank Release Detection Method:	Not reported		
Tank Release Method Detection II:	Not reported		
Tank Release Method Detection III:	Not reported		
Other Tank Release Method Detection:	None		
Tank Release Detection Variance :	No Variance		
Pipe Release Detection Method:	Not reported		
Other Pipe Release Detection Method :	None		
Pipe Release Detection Variance :	No Variance		
Spill and Overfill Protection:	Not reported		
Tank Corrosion Protection:	Not reported		
Pipe Corrosion Protection:	Not reported		
Other Corrosion Protection:	None		
Vapor Recovery Equipment Status:	Not reported		
Equipment Installed Date:	Not reported		
Equipment Installer:	Not reported		
Contractor Registration Number:	Not reported		
Tank Registration Date:	12/18/95		
Installer License Number:	Not reported		
Operator Name:	Not reported		
Operator Telephone number:	Not reported		
Operator Address:	Not reported		
Operator Address building:	Not reported		
Contact Operator Name:	Not reported		
Contact Operator title:	Not reported		
Contact Operator Phone:	Not reported		
Self-Certification date:	Not reported		
Signature Name:	Not reported		
Signature Title Name:	Not reported		
Signature Type Text:	Not reported		
Certification Submitted Type:	Not reported		
Registration Self-Certification Flag:	Not reported		
Fees Self-Certification Flag:	Not reported		
Financial Assurance Self-Certification flag:	Not reported		
Technical standards Self-Certification flag:	Not reported		
UST Delivery Certificate Expiration Date:	Not reported		
Compartment letter:	Not reported		
Financial Responsibility Type:	Not reported		
Corrective Action Met Flag:	Not reported		
Third Party Met Flag:	Not reported		

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

DBA DIXON BROS AUTO CENTER (Continued)

U003424220

Financial Assurance Beginning Date: Not reported
 Piping Design & Ext. Containment 3 : Not reported
 Piping Design & Ext. Containment 4 : Not reported
 Type of Piping : Not reported
 Internal Tank Lining Date : 00/00/00
 Pipe Connectors and Valves 1 : Not reported
 Pipe Connectors and Valves 2 : Not reported
 Pipe Connectors and Valves 3 : Not reported
 Other Tank Corrosion Protection Text: None
 Tank Corrosion Protection Variance : No Variance
 Pipe Corrosion Protection iii3 : Not reported
 Pipe Corrosion Protection Variance : No Variance
 Stage 2 Vapor Recry Equipment Status : Not reported
 Stage 1 Equipment Installed Date : Not reported
 Tank Tested : Not reported
 Compartment Capacity : 0000000
 Owner ID : Not reported
 Owner Name : BARRETT MARY NAN
 Owner Address : 8602 CROWNHILL
 SAN ANTONIO, TX 78209
 Owner Contact Telephone : 210-829-7831
 Owner Contact Name: Chris Waples
 Date Registration Form Received : 18/95/12
 Facility Type : Retail
 Name of Facility Manager : Not reported
 Title of Facility Manager : Not reported
 Facility Manager Phone : Not reported
 Sign Name on Registration Form : John C. Waples
 Title of Signer of Registration Form : President
 Date of Signature on Registration Form : 121295
 Facility in Ozone non-attainment area : Not reported

C11 CENTRAL DIST CO
WNW 6127 SAN PEDRO
1/2-1 SAN ANTONIO, TX 78216
3741 ft.

LUST U003412047
UST N/A

Site 1 of 2 in cluster C

**Relative:
 Higher**

LUST:
 Facility ID: 0036151
 Facility Location: 6127 SAN PEDRO AVE
 Reported Date: 12/4/89
 Entered Date: 1/8/90
 RPR Coordinator: HELEN WELCH
 Region: 13
 Region City ID: SAN ANTONIO
 LPST Id: 094239
 Responsible Party: RUBIOLA CO
 RP Contact: Not reported
 RP Telephone: Not reported
 County Code: 015
 RP Address: CHERRY RIDGE
 TX 78230
 Priority: SOIL CONTAMINATION ONLY, REQUIRES FULL SITE ASSESSMENT &
 RAP
 Status: FINAL CONCURRENCE ISSUED, CASE CLOSED

**Actual:
 731 ft.**

UST:
 Facility ID: 0036151 Tank Installer: Not reported

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

MAP FINDINGS

CENTRAL DIST CO (Continued)

EDR ID Number
 EPA ID Number

Database(s)

U003412047

Tank ID:	3	Installation Date:	01/01/71
Tank Emptied:	No	Status Date:	12/31/89
Capacity:	2000	Unit ID:	00095621
Tank Material of Construction:	Steel		
Pipe Material of Construction:	Steel		
Other Materials of Construction:	Not reported		
Tank Status:	Removed from the Ground		
Tank Construction & Containment:	Not reported		
Pipe Construction & Containment:	Not reported		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Not reported		
Compartment Other Substance:	EMPTY		
Tank Release Detection Method:	Not reported		
Tank Release Method Detection II:	Not reported		
Tank Release Method Detection III:	Not reported		
Other Tank Release Method Detection:	None		
Tank Release Detection Variance :	No Variance		
Pipe Release Detection Method:	Not reported		
Other Pipe Release Detection Method :	None		
Pipe Release Detection Variance :	No Variance		
Spill and Overfill Protection:	Not reported		
Tank Corrosion Protection:	Not reported		
Pipe Corrosion Protection:	Not reported		
Other Corrosion Protection:	None		
Vapor Recovery Equipment Status:	Not reported		
Equipment Installed Date:	Not reported		
Equipment Installer:	Not reported		
Contractor Registration Number:	Not reported		
Tank Registration Date:	06/06/86		
Installer License Number:	Not reported		
Operator Name:	Not reported		
Operator Telephone number:	Not reported		
Operator Address:			
Operator Address building:	Not reported		
Contact Operator Name:			
Contact Operator title:	Not reported		
Contact Operator Phone:	Not reported		
Self-Certification date:	Not reported		
Signature Name:	Not reported		
Signature Title Name:	Not reported		
Signature Type Text:	Not reported		
Certification Submitted Type:	Not reported		
Registration Self-Certification Flag:	Not reported		
Fees Self-Certification Flag:	Not reported		
Financial Assurance Self-Certification flag:	Not reported		
Technical standards Self-Certification flag:	Not reported		
UST Delivery Certificate Expiration Date:	Not reported		
Compartment letter:	Not reported		
Financial Responsibility Type:	Not reported		
Corrective Action Met Flag:	Not reported		
Third Party Met Flag:	Not reported		
Financial Assurance Beginning Date:	Not reported		
Piping Design & Ext. Containment 3 :	Not reported		
Piping Design & Ext. Containment 4 :	Not reported		
Type of Piping :	Not reported		
Internal Tank Lining Date :	00/00/00		
Pipe Connectors and Valves 1 :	Not reported		

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

CENTRAL DIST CO (Continued)

U003412047

Pipe Connectors and Valves 2 :	Not reported		
Pipe Connectors and Valves 3 :	Not reported		
Other Tank Corrosion Protection Text:	None		
Tank Corrosion Protection Variance :	No Variance		
Pipe Corrosion Protection iii3 :	Not reported		
Pipe Corrosion Protection Variance :	No Variance		
Stage 2 Vapor Recry Equipment Status :	Not reported		
Stage 1 Equipment Installed Date :	Not reported		
Tank Tested :	Not reported		
Compartment Capacity :	0000000		
Owner ID :	Not reported		
Owner Name :	RUBIOLA ALMA		
Owner Address :	SAN ANTONIO, TX 78299		
Owner Contact Telephone :	Not reported		
Owner Contact Name:	ALMA RUBIOLA		
Date Registration Form Received :	06/86/06		
Facility Type :	None of the above, or unidentified		
Name of Facility Manager :	JOE MORGENROTH		
Title of Facility Manager :	WAREHOUSE MGR.		
Facility Manager Phone :	5122251541		
Sign Name on Registration Form :	JAMES F. BOWMAN		
Title of Signer of Registration Form :	VP		
Date of Signature on Registration Form :	060686		
Facility in Ozone non-attainment area :	Not reported		
Facility ID:	0036151	Tank Installer:	Not reported
Tank ID:	2	Installation Date:	01/01/76
Tank Emptied:	No	Status Date:	12/31/89
Capacity:	10000	Unit ID:	00095622
Tank Material of Construction:	Steel		
Pipe Material of Construction:	Steel		
Other Materials of Construction:	Not reported		
Tank Status:	Removed from the Ground		
Tank Construction & Containment:	Not reported		
Pipe Construction & Containment:	Not reported		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Not reported		
Compartment Other Substance:	EMPTY		
Tank Release Detection Method:	Not reported		
Tank Release Method Detection II:	Not reported		
Tank Release Method Detection III:	Not reported		
Other Tank Release Method Detection:	None		
Tank Release Detection Variance :	No Variance		
Pipe Release Detection Method:	Not reported		
Other Pipe Release Detection Method :	None		
Pipe Release Detection Variance :	No Variance		
Spill and Overfill Protection:	Not reported		
Tank Corrosion Protection:	Not reported		
Pipe Corrosion Protection:	Not reported		
Other Corrosion Protection:	None		
Vapor Recovery Equipment Status:	Not reported		
Equipment Installed Date:	Not reported		
Equipment Installer:	Not reported		
Contractor Registration Number:	Not reported		
Tank Registration Date:	06/06/86		
Installer License Number:	Not reported		
Operator Name:	Not reported		

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

CENTRAL DIST CO (Continued)

U003412047

Operator Telephone number:	Not reported		
Operator Address:			
Operator Address building:	Not reported		
Contact Operator Name:			
Contact Operator title:	Not reported		
Contact Operator Phone:	Not reported		
Self-Certification date:	Not reported		
Signature Name:	Not reported		
Signature Title Name:	Not reported		
Signature Type Text:	Not reported		
Certification Submitted Type:	Not reported		
Registration Self-Certification Flag:	Not reported		
Fees Self-Certification Flag:	Not reported		
Financial Assurance Self-Certification flag:	Not reported		
Technical standards Self-Certification flag:	Not reported		
UST Delivery Certificate Expiration Date:	Not reported		
Compartment letter:	Not reported		
Financial Responsibility Type:	Not reported		
Corrective Action Met Flag:	Not reported		
Third Party Met Flag:	Not reported		
Financial Assurance Beginning Date:	Not reported		
Piping Design & Ext. Containment 3 :	Not reported		
Piping Design & Ext. Containment 4 :	Not reported		
Type of Piping :	Not reported		
Internal Tank Lining Date :	00/00/00		
Pipe Connectors and Valves 1 :	Not reported		
Pipe Connectors and Valves 2 :	Not reported		
Pipe Connectors and Valves 3 :	Not reported		
Other Tank Corrosion Protection Text:	None		
Tank Corrosion Protection Variance :	No Variance		
Pipe Corrosion Protection iii3 :	Not reported		
Pipe Corrosion Protection Variance :	No Variance		
Stage 2 Vapor Recry Equipment Status :	Not reported		
Stage 1 Equipment Installed Date :	Not reported		
Tank Tested :	Not reported		
Compartment Capacity :	0000000		
Owner ID :	Not reported		
Owner Name :	RUBIOLA ALMA		
Owner Address :	SAN ANTONIO, TX 78299		
Owner Contact Telephone :	Not reported		
Owner Contact Name:	ALMA RUBIOLA		
Date Registration Form Received :	06/86/06		
Facility Type :	None of the above, or unidentified		
Name of Facility Manager :	JOE MORGENROTH		
Title of Facility Manager :	WAREHOUSE MGR.		
Facility Manager Phone :	5122251541		
Sign Name on Registration Form :	JAMES F. BOWMAN		
Title of Signer of Registration Form :	VP		
Date of Signature on Registration Form :	060686		
Facility in Ozone non-attainment area :	Not reported		
Facility ID:	0036151	Tank Installer:	Not reported
Tank ID:	1	Installation Date:	01/01/76
Tank Emptied:	No	Status Date:	12/31/89
Capacity:	10000	Unit ID:	00095623
Tank Material of Construction:	Steel		
Pipe Material of Construction:	Steel		

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

CENTRAL DIST CO (Continued)

U003412047

Other Materials of Construction:	Not reported
Tank Status:	Removed from the Ground
Tank Construction & Containment:	Not reported
Pipe Construction & Containment:	Not reported
Other Construction & Containment:	Not reported
Compartment Substance Stored:	Not reported
Compartment Other Substance:	EMPTY
Tank Release Detection Method:	Not reported
Tank Release Method Detection II:	Not reported
Tank Release Method Detection III:	Not reported
Other Tank Release Method Detection:	None
Tank Release Detection Variance :	No Variance
Pipe Release Detection Method:	Not reported
Other Pipe Release Detection Method :	None
Pipe Release Detection Variance :	No Variance
Spill and Overfill Protection:	Not reported
Tank Corrosion Protection:	Not reported
Pipe Corrosion Protection:	Not reported
Other Corrosion Protection:	None
Vapor Recovery Equipment Status:	Not reported
Equipment Installed Date:	Not reported
Equipment Installer:	Not reported
Contractor Registration Number:	Not reported
Tank Registration Date:	06/06/86
Installer License Number:	Not reported
Operator Name:	Not reported
Operator Telephone number:	Not reported
Operator Address:	
Operator Address building:	Not reported
Contact Operator Name:	
Contact Operator title:	Not reported
Contact Operator Phone:	Not reported
Self-Certification date:	Not reported
Signature Name:	Not reported
Signature Title Name:	Not reported
Signature Type Text:	Not reported
Certification Submitted Type:	Not reported
Registration Self-Certification Flag:	Not reported
Fees Self-Certification Flag:	Not reported
Financial Assurance Self-Certification flag:	Not reported
Technical standards Self-Certification flag:	Not reported
UST Delivery Certificate Expiration Date:	Not reported
Compartment letter:	Not reported
Financial Responsibility Type:	Not reported
Corrective Action Met Flag:	Not reported
Third Party Met Flag:	Not reported
Financial Assurance Beginning Date:	Not reported
Piping Design & Ext. Containment 3 :	Not reported
Piping Design & Ext. Containment 4 :	Not reported
Type of Piping :	Not reported
Internal Tank Lining Date :	00/00/00
Pipe Connectors and Valves 1 :	Not reported
Pipe Connectors and Valves 2 :	Not reported
Pipe Connectors and Valves 3 :	Not reported
Other Tank Corrosion Protection Text:	None
Tank Corrosion Protection Variance :	No Variance
Pipe Corrosion Protection iii3 :	Not reported

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

CENTRAL DIST CO (Continued)

U003412047

Pipe Corrosion Protection Variance : No Variance
 Stage 2 Vapor Recy Equipment Status : Not reported
 Stage 1 Equipment Installed Date : Not reported
 Tank Tested : Not reported
 Compartment Capacity : 0000000
 Owner ID : Not reported
 Owner Name : RUBIOLA ALMA
 Owner Address : SAN ANTONIO, TX 78299
 Owner Contact Telephone : Not reported
 Owner Contact Name: ALMA RUBIOLA
 Date Registration Form Received : 06/86/06
 Facility Type : None of the above, or unidentified
 Name of Facility Manager : JOE MORGENROTH
 Title of Facility Manager : WAREHOUSE MGR.
 Facility Manager Phone : 5122251541
 Sign Name on Registration Form : JAMES F. BOWMAN
 Title of Signer of Registration Form : VP
 Date of Signature on Registration Form : 060686
 Facility in Ozone non-attainment area : Not reported

C12 CATALINA MOTORS
WNW 6143 SAN PEDRO
1/2-1 SAN ANTONIO, TX 78230
3768 ft.

LUST U003412372
UST N/A
Ind. Haz Waste

Site 2 of 2 in cluster C

**Relative:
 Higher**

LUST:
 Facility ID: 0054168
 Facility Location: 6143 SAN PEDRO AVE
 Reported Date: 12/30/89
 Entered Date: 8/29/90
 RPR Coordinator: RPR
 Region: 13
 Region City ID: SAN ANTONIO
 LPST Id: 096597
 Responsible Party: JACOB RUBIOLA CO
 RP Contact: PAUL RUBIOLA
 RP Telephone: 512/525-0500
 County Code: 015
 RP Address: 3201 CHERRY RIDGE STE 311
 SAN ANTONIO, TX 78230
 Priority: SOIL CONTAMINATION ONLY, REQUIRES FULL SITE ASSESSMENT &
 RAP
 Status: FINAL CONCURRENCE ISSUED, CASE CLOSED

**Actual:
 732 ft.**

TX IHW:
 Registration Number: 61760
 Registration Initial Notification Date: 09/30/1985
 Registration Last Amendment Date: 11/14/1986
 EPA Identification: Not reported
 TNRCC Permit Number: Not reported
 Description of Facility Site Location: 6143 SAN PEDRO, SAN ANTONIO
 Site Primary Standard Industrial Code: 00
 Not reported
 Registration is a Generator of Waste: Yes
 Registration is a Receiver of Waste: No
 Registration is a Transporter of Waste: No
 Registration is a Transfer Facility: No
 Mexican Facility: Does not represent a Maquiladora (Mexican Facility)

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

CATALINA MOTORS (Continued)

U003412372

Facility Status:	Inactive
Type of Generator:	Non-industrial and/or municipal, CESQG
Company Name:	CATALANI MTR CO
Facility County:	Not reported
TNRCC Region:	Not reported
TNRCC Facility ID :	Not reported
Site Owner Tax ID :	Not reported
Site Location Lat/Long :	Not reported
Last Update to NOR Data :	Not reported
Ind. waste permit # :	Not reported
Mun waste permit # :	Not reported
Non Notifier :	Not reported
Facility is STEERS Reporter :	Not reported
Fac Req to Submit Annual Waste Summary Rpt :	Not reported
Facility Involved In Recycling:	Not reported
Mailing Address:	6143 SAN PEDRO SAN ANTONIO, TX 78216
Mailing County:	USA
Mailing Add 3:	Not reported
Contact:	ADRIAN PERRYMANE
Contact Telephone Number:	000-0000
Registration Number:	61760
Registration Initial Notification Date:	09/30/1985
Registration Last Amendment Date:	08/23/2001
EPA Identification:	Not reported
TNRCC Permit Number:	020101
Description of Facility Site Location:	6143 SAN PEDRO,SAN ANTONIO
Site Primary Standard Industrial Code:	99990
	Nonclassifiable Establishments
	Nonclassifiable
	Nonclassifiable Establishment
	Public Admin.
	Nonclassifiable Establishment
	Public Admin.
	Nonclassifiable Establishment
	Public Admin.
Registration is a Generator of Waste:	Yes
Registration is a Receivers of Waste:	No
Registration is a Transporter of Waste:	No
Registration is a Transfer Facility:	No
Mexican Facility:	Does not represent a Maquiladora (Mexican Facility)
Facility Status:	Inactive
Type of Generator:	Non-industrial and/or municipal, CESQG
Company Name:	CATALANI MTR CO
Facility County:	Not reported
TNRCC Region:	Not reported
TNRCC Facility ID :	020101
Site Owner Tax ID :	Not reported
Site Location Lat/Long :	Not reported
Last Update to NOR Data :	20010824
Ind. waste permit # :	Not reported
Mun waste permit # :	Not reported
Non Notifier :	No
Facility is STEERS Reporter :	No
Fac Req to Submit Annual Waste Summary Rpt :	No
Facility Involved In Recycling:	No

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

CATALINA MOTORS (Continued)

U003412372

Mailing Address: 6143 SAN PEDRO
SAN ANTONIO, TX 78216
Mailing County: USA
Mailing Add 3: Not reported
Contact: ADRIAN PERRYMANE
Contact Telephone Number: Not reported
Registration Number: 61760
Registration Initial Notification Date: 09/30/1985
Registration Last Amendment Date: 08/23/2001
EPA Identification: Not reported
TNRCC Permit Number: 020101
Description of Facility Site Location: 6143 SAN PEDRO,SAN ANTONIO
Site Primary Standard Industrial Code: 99990
Nonclassifiable Establishments
Nonclassifiable
Nonclassifiable Establishment
Public Admin.
Nonclassifiable Establishment
Public Admin.
Nonclassifiable Establishment
Public Admin.
Registration is a Generator of Waste: Yes
Registration is a Receivers of Waste: No
Registration is a Transporter of Waste: No
Registration is a Transfer Facility: No
Mexican Facility: Does not represent a Maquiladora (Mexican Facility)
Facility Status: Inactive
Type of Generator: Non-industrial and/or municipal, CESQG
Company Name: CATALANI MTR CO
Facility County: Not reported
TNRCC Region: Not reported
TNRCC Facility ID : 020101
Site Owner Tax ID : Not reported
Site Location Lat/Long : Not reported
Last Update to NOR Data : 20010824
Ind. waste permit # : Not reported
Mun waste permit # : Not reported
Non Notifier : No
Facility is STEERS Reporter : No
Fac Req to Submit Annual Waste Summary Rpt : No
Facility Involved In Recycling: No
Mailing Address: 6143 SAN PEDRO
SAN ANTONIO, TX 78216
Mailing County: USA
Mailing Add 3: Not reported
Contact: ADRIAN PERRYMANE
Contact Telephone Number: Not reported
Registration Number: 61760
Registration Initial Notification Date: 09/30/1985
Registration Last Amendment Date: 11/14/1986
EPA Identification: Not reported
TNRCC Permit Number: Not reported
Description of Facility Site Location: 6143 SAN PEDRO,SAN ANTONIO
Site Primary Standard Industrial Code: 00
Not reported

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

CATALINA MOTORS (Continued)

U003412372

Registration is a Generator of Waste: Yes
 Registration is a Receivers of Waste: No
 Registration is a Transporter of Waste: No
 Registration is a Transfer Facility: No
 Mexican Facility: Does not represent a Maquiladora (Mexican Facility)
 Facility Status: Inactive
 Type of Generator: Non-industrial and/or municipal, CESQG
 Company Name: CATALANI MTR CO
 Facility County: Not reported
 TNRCC Region: Not reported
 TNRCC Facility ID : Not reported
 Site Owner Tax ID : Not reported
 Site Location Lat/Long : Not reported
 Last Update to NOR Data : Not reported
 Ind. waste permit # : Not reported
 Mun waste permit # : Not reported
 Non Notifier : Not reported
 Facility is STEERS Reporter : Not reported
 Fac Req to Submit Annual Waste Summary Rpt : Not reported
 Facility Involved In Recycling: Not reported
 Mailing Address: 6143 SAN PEDRO
 SAN ANTONIO, TX 78216
 Mailing County: USA
 Mailing Add 3: Not reported
 Contact: ADRIAN PERRYMANE
 Contact Telephone Number: 000-0000

The TX IHW database may contain additional details for this site.
 Please click [here](#) or contact your EDR Account Executive for more information.

UST:

Facility ID:	0054168	Tank Installer:	Not reported
Tank ID:	2	Installation Date:	Not reported
Tank Emptied:	No	Status Date:	12/21/89
Capacity:	4000	Unit ID:	00132863
Tank Material of Construction:	Not reported		
Pipe Material of Construction:	Not reported		
Other Materials of Construction:	Not reported		
Tank Status:	Removed from the Ground		
Tank Construction & Containment:	Not reported		
Pipe Construction & Containment:	Not reported		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Not reported		
Compartment Other Substance:	UNKNOWN		
Tank Release Detection Method:	Not reported		
Tank Release Method Detection II:	Not reported		
Tank Release Method Detection III:	Not reported		
Other Tank Release Method Detection:	None		
Tank Release Detection Variance :	No Variance		
Pipe Release Detection Method:	Not reported		
Other Pipe Release Detection Method :	None		
Pipe Release Detection Variance :	No Variance		
Spill and Overfill Protection:	Not reported		
Tank Corrosion Protection:	Not reported		
Pipe Corrosion Protection:	Not reported		
Other Corrosion Protection:	None		
Vapor Recovery Equipment Status:	Not reported		
Equipment Installed Date:	Not reported		

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

CATALINA MOTORS (Continued)

U003412372

Equipment Installer:	Not reported
Contractor Registration Number:	Not reported
Tank Registration Date:	06/20/90
Installer License Number:	Not reported
Operator Name:	Not reported
Operator Telephone number:	Not reported
Operator Address:	
Operator Address building:	Not reported
Contact Operator Name:	
Contact Operator title:	Not reported
Contact Operator Phone:	Not reported
Self-Certification date:	Not reported
Signature Name:	Not reported
Signature Title Name:	Not reported
Signature Type Text:	Not reported
Certification Submitted Type:	Not reported
Registration Self-Certification Flag:	Not reported
Fees Self-Certification Flag:	Not reported
Financial Assurance Self-Certification flag:	Not reported
Technical standards Self-Certification flag:	Not reported
UST Delivery Certificate Expiration Date:	Not reported
Compartment letter:	Not reported
Financial Responsibility Type:	Not reported
Corrective Action Met Flag:	Not reported
Third Party Met Flag:	Not reported
Financial Assurance Beginning Date:	Not reported
Piping Design & Ext. Containment 3 :	Not reported
Piping Design & Ext. Containment 4 :	Not reported
Type of Piping :	Not reported
Internal Tank Lining Date :	00/00/00
Pipe Connectors and Valves 1 :	Not reported
Pipe Connectors and Valves 2 :	Not reported
Pipe Connectors and Valves 3 :	Not reported
Other Tank Corrosion Protection Text:	None
Tank Corrosion Protection Variance :	No Variance
Pipe Corrosion Protection iii3 :	Not reported
Pipe Corrosion Protection Variance :	No Variance
Stage 2 Vapor Recry Equipment Status :	Not reported
Stage 1 Equipment Installed Date :	Not reported
Tank Tested :	Not reported
Compartment Capacity :	0000000
Owner ID :	Not reported
Owner Name :	RUBIOLA JACOB
Owner Address :	3201 CHERRY RIDGE 310 SAN ANTONIO, TX 78230
Owner Contact Telephone :	(512) 525-0500
Owner Contact Name:	JACOB RUBIOLA
Date Registration Form Received :	20/90/06
Facility Type :	Fleet Refueling
Name of Facility Manager :	JACOB RUBIOLA
Title of Facility Manager :	OWNER
Facility Manager Phone :	5125250500
Sign Name on Registration Form :	TEHCO INC
Title of Signer of Registration Form :	CLOSER
Date of Signature on Registration Form :	061590
Facility in Ozone non-attainment area :	Not reported

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

MAP FINDINGS

CATALINA MOTORS (Continued)

EDR ID Number
 EPA ID Number

Database(s)

U003412372

Facility ID:	0054168	Tank Installer:	Not reported
Tank ID:	1	Installation Date:	Not reported
Tank Emptied:	No	Status Date:	12/21/89
Capacity:	3000	Unit ID:	00132864
Tank Material of Construction:	Not reported		
Pipe Material of Construction:	Not reported		
Other Materials of Construction:	Not reported		
Tank Status:	Removed from the Ground		
Tank Construction & Containment:	Not reported		
Pipe Construction & Containment:	Not reported		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Not reported		
Compartment Other Substance:	UNKNOWN		
Tank Release Detection Method:	Not reported		
Tank Release Method Detection II:	Not reported		
Tank Release Method Detection III:	Not reported		
Other Tank Release Method Detection:	None		
Tank Release Detection Variance :	No Variance		
Pipe Release Detection Method:	Not reported		
Other Pipe Release Detection Method :	None		
Pipe Release Detection Variance :	No Variance		
Spill and Overfill Protection:	Not reported		
Tank Corrosion Protection:	Not reported		
Pipe Corrosion Protection:	Not reported		
Other Corrosion Protection:	None		
Vapor Recovery Equipment Status:	Not reported		
Equipment Installed Date:	Not reported		
Equipment Installer:	Not reported		
Contractor Registration Number:	Not reported		
Tank Registration Date:	06/20/90		
Installer License Number:	Not reported		
Operator Name:	Not reported		
Operator Telephone number:	Not reported		
Operator Address:			
Operator Address building:	Not reported		
Contact Operator Name:			
Contact Operator title:	Not reported		
Contact Operator Phone:	Not reported		
Self-Certification date:	Not reported		
Signature Name:	Not reported		
Signature Title Name:	Not reported		
Signature Type Text:	Not reported		
Certification Submitted Type:	Not reported		
Registration Self-Certification Flag:	Not reported		
Fees Self-Certification Flag:	Not reported		
Financial Assurance Self-Certification flag:	Not reported		
Technical standards Self-Certification flag:	Not reported		
UST Delivery Certificate Expiration Date:	Not reported		
Compartment letter:	Not reported		
Financial Responsibility Type:	Not reported		
Corrective Action Met Flag:	Not reported		
Third Party Met Flag:	Not reported		
Financial Assurance Beginning Date:	Not reported		
Piping Design & Ext. Containment 3 :	Not reported		
Piping Design & Ext. Containment 4 :	Not reported		
Type of Piping :	Not reported		

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

CATALINA MOTORS (Continued)

U003412372

Internal Tank Lining Date :	00/00/00	Tank Installer:	Not reported
Pipe Connectors and Valves 1 :	Not reported	Installation Date:	Not reported
Pipe Connectors and Valves 2 :	Not reported	Status Date:	12/21/89
Pipe Connectors and Valves 3 :	Not reported	Unit ID:	00132865
Other Tank Corrosion Protection Text:	None		
Tank Corrosion Protection Variance :	No Variance		
Pipe Corrosion Protection iii3 :	Not reported		
Pipe Corrosion Protection Variance :	No Variance		
Stage 2 Vapor Recry Equipment Status :	Not reported		
Stage 1 Equipment Installed Date :	Not reported		
Tank Tested :	Not reported		
Compartment Capacity :	0000000		
Owner ID :	Not reported		
Owner Name :	RUBIOLA JACOB		
Owner Address :	3201 CHERRY RIDGE 310 SAN ANTONIO, TX 78230		
Owner Contact Telephone :	(512) 525-0500		
Owner Contact Name:	JACOB RUBIOLA		
Date Registration Form Received :	20/90/06		
Facility Type :	Fleet Refueling		
Name of Facility Manager :	JACOB RUBIOLA		
Title of Facility Manager :	OWNER		
Facility Manager Phone :	5125250500		
Sign Name on Registration Form :	TEHCO INC		
Title of Signer of Registration Form :	CLOSER		
Date of Signature on Registration Form :	061590		
Facility in Ozone non-attainment area :	Not reported		
Facility ID:	0054168		
Tank ID:	3		
Tank Emptied:	No		
Capacity:	4000		
Tank Material of Construction:	Not reported		
Pipe Material of Construction:	Not reported		
Other Materials of Construction:	Not reported		
Tank Status:	Removed from the Ground		
Tank Construction & Containment:	Not reported		
Pipe Construction & Containment:	Not reported		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Not reported		
Compartment Other Substance:	UNKNOWN		
Tank Release Detection Method:	Not reported		
Tank Release Method Detection II:	Not reported		
Tank Release Method Detection III:	Not reported		
Other Tank Release Method Detection:	None		
Tank Release Detection Variance :	No Variance		
Pipe Release Detection Method:	Not reported		
Other Pipe Release Detection Method :	None		
Pipe Release Detection Variance :	No Variance		
Spill and Overfill Protection:	Not reported		
Tank Corrosion Protection:	Not reported		
Pipe Corrosion Protection:	Not reported		
Other Corrosion Protection:	None		
Vapor Recovery Equipment Status:	Not reported		
Equipment Installed Date:	Not reported		
Equipment Installer:	Not reported		
Contractor Registration Number:	Not reported		

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

CATALINA MOTORS (Continued)

U003412372

Tank Registration Date: 06/20/90
Installer License Number: Not reported
Operator Name: Not reported
Operator Telephone number: Not reported
Operator Address:
Operator Address building: Not reported
Contact Operator Name:
Contact Operator title: Not reported
Contact Operator Phone: Not reported
Self-Certification date: Not reported
Signature Name: Not reported
Signature Title Name: Not reported
Signature Type Text: Not reported
Certification Submitted Type: Not reported
Registration Self-Certification Flag: Not reported
Fees Self-Certification Flag: Not reported
Financial Assurance Self-Certification flag: Not reported
Technical standards Self-Certification flag: Not reported
UST Delivery Certificate Expiration Date: Not reported
Compartment letter: Not reported
Financial Responsibility Type: Not reported
Corrective Action Met Flag: Not reported
Third Party Met Flag: Not reported
Financial Assurance Beginning Date: Not reported
Piping Design & Ext. Containment 3 : Not reported
Piping Design & Ext. Containment 4 : Not reported
Type of Piping : Not reported
Internal Tank Lining Date : 00/00/00
Pipe Connectors and Valves 1 : Not reported
Pipe Connectors and Valves 2 : Not reported
Pipe Connectors and Valves 3 : Not reported
Other Tank Corrosion Protection Text: None
Tank Corrosion Protection Variance : No Variance
Pipe Corrosion Protection iii3 : Not reported
Pipe Corrosion Protection Variance : No Variance
Stage 2 Vapor Recry Equipment Status : Not reported
Stage 1 Equipment Installed Date : Not reported
Tank Tested : Not reported
Compartment Capacity : 0000000
Owner ID : Not reported
Owner Name : RUBIOLA JACOB
Owner Address : 3201 CHERRY RIDGE 310
SAN ANTONIO, TX 78230
Owner Contact Telephone : (512) 525-0500
Owner Contact Name: JACOB RUBIOLA
Date Registration Form Received : 20/90/06
Facility Type : Fleet Refueling
Name of Facility Manager : JACOB RUBIOLA
Title of Facility Manager : OWNER
Facility Manager Phone : 5125250500
Sign Name on Registration Form : TEHCO INC
Title of Signer of Registration Form : CLOSER
Date of Signature on Registration Form : 061590
Facility in Ozone non-attainment area : Not reported

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

MAP FINDINGS

CATALINA MOTORS (Continued)

Database(s) EDR ID Number
 EPA ID Number

U003412372

13
WSW
1/2-1
3774 ft.

BILL BROWN AUTOMOTIVE
5505 SAN PEDRO AVE
SAN ANTONIO, TX 78216

LUST S105121721
N/A

Relative:
Higher

LUST:

Facility ID: Not reported
 Facility Location: 5505 SAN PEDRO AVE
 Reported Date: 12/9/88
 Entered Date: 12/20/88
 RPR Coordinator: RPR
 Region: 13
 Region City ID: SAN ANTONIO
 LPST Id: 092422
 Responsible Party: KAPLAN GERALD
 RP Contact: GERALD KAPLAN
 RP Telephone: 512/226-0156
 County Code: 015
 RP Address: PO BOX 830112
 SAN ANTONIO, TX 78283
 Priority: SOIL CONTAMINATION ONLY, REQUIRES FULL SITE ASSESSMENT & RAP
 Status: FINAL CONCURRENCE ISSUED, CASE CLOSED

14
SSW
1/2-1
3774 ft.

DIAMOND SHAMROCK 95
5105 N MCCULLOUGH
SAN ANTONIO, TX 78212

LUST U003423870
UST N/A

Relative:
Higher

LUST:

Facility ID: 0032850
 Facility Location: 5101 MCCULLOUGH
 Reported Date: 4/11/94
 Entered Date: 5/5/94
 RPR Coordinator: PHG
 Region: 13
 Region City ID: SAN ANTONIO
 LPST Id: 108041
 Responsible Party: DIAMOND SHAMROCK REF & MKTG CO
 RP Contact: C SHAY WIDEMAN
 RP Telephone: 210/592-4663
 County Code: 015
 RP Address: PO BOX 696000
 SAN ANTONIO, TX 78269 - 6000
 Priority: GW IMPACT, PUB/DOM WATER SUPPLY WELL W/IN .25 - .5 mi
 Status: FINAL CONCURRENCE ISSUED, CASE CLOSED

UST:

Facility ID:	0032850	Tank Installer:	Not reported
Tank ID:	1	Installation Date:	06/01/75
Tank Emptied:	No	Status Date:	Not reported
Capacity:	12000	Unit ID:	00086284
Tank Material of Construction:	Steel		
Pipe Material of Construction:	Fiberglass-Reinforced Plastic (FRP)		
Other Materials of Construction:	Not reported		
Tank Status:	In Use		
Tank Construction & Containment:	Single Wall		
Pipe Construction & Containment:	Double Wall		

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

DIAMOND SHAMROCK 95 (Continued)

U003423870

Other Construction & Containment:	Not reported
Compartment Substance Stored:	Gasoline
Compartment Other Substance:	Not reported
Tank Release Detection Method:	SIR (Stat. Inventory Reconciliation) and Inventory Cntr
Tank Release Method Detection II:	Not reported
Tank Release Method Detection III:	Not reported
Other Tank Release Method Detection:	Not reported
Tank Release Detection Variance :	No Variance
Pipe Release Detection Method:	SIR (Stat. Inventory Reconciliation) and Inventory Cntr
Pipe Release Detection Method II:	Auto. Line Leak Detector(3.0gph for pressure piping)
Other Pipe Release Detection Method :	Not reported
Pipe Release Detection Variance :	No Variance
Spill and Overfill Protection:	Automatic Delivery Shut-off Valve
Spill and Overfill Protection II:	Tight-Fill Fitting
Spill and Overfill Protection III:	Tight-Fill Fitting
Tank Corrosion Protection:	9
Tank Corrosion Protection II:	Composite Tank (steel w/FRP laminate)
Pipe Corrosion Protection:	9
Pipe Corrosion Protection II:	None
Other Corrosion Protection:	Not reported
Vapor Recovery Equipment Status:	Stage 2 Vapor Recovery Equipment Installed
Equipment Installed Date:	Not reported
Equipment Installer:	Not reported
Contractor Registration Number:	Not reported
Tank Registration Date:	04/24/86
Installer License Number:	Not reported
Operator Name:	DIAMOND SHAMROCK REFINING AND MARKETING COMPANY
Operator Telephone number:	Not reported
Operator Address:	SAN ANTONIO, TX 78269 - 6000
Operator Address building:	PO BOX 696000
Contact Operator Name:	TERRY HANKINS
Contact Operator title:	O & E SPECIALIST
Contact Operator Phone:	713-812-3041
Self-Certification date:	080502
Signature Name:	RAYMOND MCNIECE
Signature Title Name:	O & E SPEC
Signature Type Text:	Legally-Authorized Rep of Owner
Certification Submitted Type:	A
Registration Self-Certification Flag:	1
Fees Self-Certification Flag:	Not reported
Financial Assurance Self-Certification flag:	1
Technical standards Self-Certification flag:	1
UST Delivery Certificate Expiration Date:	20/03/09
Compartment letter:	A
Financial Responsibility Type:	Financial Test
Corrective Action Met Flag:	1
Third Party Met Flag:	1
Financial Assurance Beginning Date:	12/31/92
Piping Design & Ext. Containment 3 :	Not reported
Piping Design & Ext. Containment 4 :	Not reported
Type of Piping :	A
Internal Tank Lining Date :	00/00/00
Pipe Connectors and Valves 1 :	3
Pipe Connectors and Valves 2 :	1
Pipe Connectors and Valves 3 :	Not reported
Other Tank Corrosion Protection Text:	Not reported

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

MAP FINDINGS

DIAMOND SHAMROCK 95 (Continued)

EDR ID Number
 EPA ID Number

Database(s)

U003423870

Tank Corrosion Protection Variance : No Variance
 Pipe Corrosion Protection iii3 : Not reported
 Pipe Corrosion Protection Variance : No Variance
 Stage 2 Vapor Recry Equipment Status : Not reported
 Stage 1 Equipment Installed Date : Not reported
 Tank Tested : Not reported
 Compartment Capacity : 0000000
 Owner ID : 21599
 Owner Name : DIAMOND SHAMROCK REFINING AND MARKETING COMPANY
 Owner Address : SAN ANTONIO, TX 78269
 Owner Contact Telephone : 817-980-2138
 Owner Contact Name: BUNLUE BOONPITUCK
 Date Registration Form Received : 24/86/04
 Facility Type : Retail
 Name of Facility Manager : Trinkle
 Title of Facility Manager : Not reported
 Facility Manager Phone : 210-592-4666
 Sign Name on Registration Form : JOHN MCPHERSON
 Title of Signer of Registration Form : DIVISION MGR.
 Date of Signature on Registration Form : 042486
 Facility in Ozone non-attainment area : Not reported

Facility ID:	0032850	Tank Installer:	Not reported
Tank ID:	2	Installation Date:	06/01/75
Tank Emptied:	No	Status Date:	Not reported
Capacity:	12000	Unit ID:	00086285
Tank Material of Construction:	Steel		
Pipe Material of Construction:	Fiberglass-Reinforced Plastic (FRP)		
Other Materials of Construction:	Not reported		
Tank Status:	In Use		
Tank Construction & Containment:	Single Wall		
Pipe Construction & Containment:	Double Wall		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Gasoline		
Compartment Other Substance:	Not reported		
Tank Release Detection Method:	SIR (Stat. Inventory Reconciliation) and Inventory Cntr		
Tank Release Method Detection II:	Not reported		
Tank Release Method Detection III:	Not reported		
Other Tank Release Method Detection:	Not reported		
Tank Release Detection Variance :	No Variance		
Pipe Release Detection Method:	SIR (Stat. Inventory Reconciliation) and Inventory Cntr		
Pipe Release Detection Method II:	Auto. Line Leak Detector(3.0gph for pressure piping)		
Other Pipe Release Detection Method :	Not reported		
Pipe Release Detection Variance :	No Variance		
Spill and Overfill Protection:	Automatic Delivery Shut-off Valve		
Spill and Overfill Protection II:	Tight-Fill Fitting		
Spill and Overfill Protection III:	Tight-Fill Fitting		
Tank Corrosion Protection:	9		
Tank Corrosion Protection II:	Composite Tank (steel w/FRP laminate)		
Pipe Corrosion Protection:	9		
Pipe Corrosion Protection II:	None		
Other Corrosion Protection:	Not reported		
Vapor Recovery Equipment Status:	Stage 2 Vapor Recovery Equipment Installed		
Equipment Installed Date:	Not reported		
Equipment Installer:	Not reported		
Contractor Registration Number:	Not reported		
Tank Registration Date:	04/24/86		

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

DIAMOND SHAMROCK 95 (Continued)

U003423870

Installer License Number:	Not reported	
Operator Name:	DIAMOND SHAMROCK REFINING AND MARKETING COMPANY	
Operator Telephone number:	Not reported	
Operator Address:		
	SAN ANTONIO, TX 78269 - 6000	
Operator Address building:	PO BOX 696000	
Contact Operator Name:	TERRY HANKINS	
Contact Operator title:	O & E SPECIALIST	
Contact Operator Phone:	713-812-3041	
Self-Certification date:	080502	
Signature Name:	RAYMOND MCNIECE	
Signature Title Name:	O & E SPEC	
Signature Type Text:	Legally-Authorized Rep of Owner	
Certification Submitted Type:	A	
Registration Self-Certification Flag:	1	
Fees Self-Certification Flag:	Not reported	
Financial Assurance Self-Certification flag:	1	
Technical standards Self-Certification flag:	1	
UST Delivery Certificate Expiration Date:	20/03/09	
Compartment letter:	A	
Financial Responsibility Type:	Financial Test	
Corrective Action Met Flag:	1	
Third Party Met Flag:	1	
Financial Assurance Beginning Date:	12/31/92	
Piping Design & Ext. Containment 3 :	Not reported	
Piping Design & Ext. Containment 4 :	Not reported	
Type of Piping :	A	
Internal Tank Lining Date :	00/00/00	
Pipe Connectors and Valves 1 :	3	
Pipe Connectors and Valves 2 :	1	
Pipe Connectors and Valves 3 :	Not reported	
Other Tank Corrosion Protection Text:	Not reported	
Tank Corrosion Protection Variance :	No Variance	
Pipe Corrosion Protection iii3 :	Not reported	
Pipe Corrosion Protection Variance :	No Variance	
Stage 2 Vapor Recry Equipment Status :	Not reported	
Stage 1 Equipment Installed Date :	Not reported	
Tank Tested :	Not reported	
Compartment Capacity :	0000000	
Owner ID :	21599	
Owner Name :	DIAMOND SHAMROCK REFINING AND MARKETING COMPANY	
Owner Address :	SAN ANTONIO, TX 78269	
Owner Contact Telephone :	817-980-2138	
Owner Contact Name:	BUNLUE BOONPITUCK	
Date Registration Form Received :	24/86/04	
Facility Type :	Retail	
Name of Facility Manager :	Trinkle	
Title of Facility Manager :	Not reported	
Facility Manager Phone :	210-592-4666	
Sign Name on Registration Form :	JOHN MCPHERSON	
Title of Signer of Registration Form :	DIVISION MGR.	
Date of Signature on Registration Form :	042486	
Facility in Ozone non-attainment area :	Not reported	
Facility ID:	0032850	Tank Installer: Not reported
Tank ID:	3	Installation Date: 01/01/68
Tank Emptied:	No	Status Date: 12/30/86

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

DIAMOND SHAMROCK 95 (Continued)

EDR ID Number
EPA ID Number

Database(s)

U003423870

Capacity: 4000 Unit ID: 00086286
Tank Material of Construction: Steel
Pipe Material of Construction: Not reported
Other Materials of Construction: COPPER PIPING
Tank Status: Removed from the Ground
Tank Construction & Containment: Not reported
Pipe Construction & Containment: Not reported
Other Construction & Containment: Not reported
Compartment Substance Stored: Gasoline
Compartment Other Substance: Not reported
Tank Release Detection Method: SIR (Stat. Inventory Reconciliation) and Inventory Cntr
Tank Release Method Detection II: Not reported
Tank Release Method Detection III: Not reported
Other Tank Release Method Detection: Not reported
Tank Release Detection Variance : No Variance
Pipe Release Detection Method: SIR (Stat. Inventory Reconciliation) and Inventory Cntr
Pipe Release Detection Method II: Auto. Line Leak Detector(3.0gph for pressure piping)
Other Pipe Release Detection Method : Not reported
Pipe Release Detection Variance : No Variance
Spill and Overfill Protection: Automatic Delivery Shut-off Valve
Spill and Overfill Protection II: Tight-Fill Fitting
Spill and Overfill Protection III: Tight-Fill Fitting
Tank Corrosion Protection: Not reported
Pipe Corrosion Protection: Not reported
Other Corrosion Protection: None
Vapor Recovery Equipment Status: Not reported
Equipment Installed Date: Not reported
Equipment Installer: Not reported
Contractor Registration Number: Not reported
Tank Registration Date: 04/24/86
Installer License Number: Not reported
Operator Name: DIAMOND SHAMROCK REFINING AND MARKETING COMPANY
Operator Telephone number: Not reported
Operator Address: SAN ANTONIO, TX 78269 - 6000
Operator Address building: PO BOX 696000
Contact Operator Name: TERRY HANKINS
Contact Operator title: O & E SPECIALIST
Contact Operator Phone: 713-812-3041
Self-Certification date: 080502
Signature Name: RAYMOND MCNIECE
Signature Title Name: O & E SPEC
Signature Type Text: Legally-Authorized Rep of Owner
Certification Submitted Type: A
Registration Self-Certification Flag: 1
Fees Self-Certification Flag: Not reported
Financial Assurance Self-Certification flag: 1
Technical standards Self-Certification flag: 1
UST Delivery Certificate Expiration Date: 20/03/09
Compartment letter: A
Financial Responsibility Type: Financial Test
Corrective Action Met Flag: 1
Third Party Met Flag: 1
Financial Assurance Beginning Date: 12/31/92
Piping Design & Ext. Containment 3 : Not reported
Piping Design & Ext. Containment 4 : Not reported
Type of Piping : Not reported

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

DIAMOND SHAMROCK 95 (Continued)

U003423870

Internal Tank Lining Date :	00/00/00		
Pipe Connectors and Valves 1 :	Not reported		
Pipe Connectors and Valves 2 :	Not reported		
Pipe Connectors and Valves 3 :	Not reported		
Other Tank Corrosion Protection Text:	Not reported		
Tank Corrosion Protection Variance :	No Variance		
Pipe Corrosion Protection iii3 :	Not reported		
Pipe Corrosion Protection Variance :	No Variance		
Stage 2 Vapor Recry Equipment Status :	Not reported		
Stage 1 Equipment Installed Date :	Not reported		
Tank Tested :	Not reported		
Compartment Capacity :	0000000		
Owner ID :	21599		
Owner Name :	DIAMOND SHAMROCK REFINING AND MARKETING COMPANY		
Owner Address :	SAN ANTONIO, TX 78269		
Owner Contact Telephone :	817-980-2138		
Owner Contact Name:	BUNLUE BOONPITUCK		
Date Registration Form Received :	24/86/04		
Facility Type :	Retail		
Name of Facility Manager :	Trinkle		
Title of Facility Manager :	Not reported		
Facility Manager Phone :	210-592-4666		
Sign Name on Registration Form :	JOHN MCPHERSON		
Title of Signer of Registration Form :	DIVISION MGR.		
Date of Signature on Registration Form :	042486		
Facility in Ozone non-attainment area :	Not reported		
Facility ID:	0032850	Tank Installer:	Not reported
Tank ID:	4	Installation Date:	01/01/68
Tank Emptied:	No	Status Date:	12/30/86
Capacity:	4000	Unit ID:	00086287
Tank Material of Construction:	Steel		
Pipe Material of Construction:	Not reported		
Other Materials of Construction:	COPPER PIPING		
Tank Status:	Removed from the Ground		
Tank Construction & Containment:	Not reported		
Pipe Construction & Containment:	Not reported		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Gasoline		
Compartment Other Substance:	Not reported		
Tank Release Detection Method:	SIR (Stat. Inventory Reconciliation) and Inventory Cntr		
Tank Release Method Detection II:	Not reported		
Tank Release Method Detection III:	Not reported		
Other Tank Release Method Detection:	Not reported		
Tank Release Detection Variance :	No Variance		
Pipe Release Detection Method:	SIR (Stat. Inventory Reconciliation) and Inventory Cntr		
Pipe Release Detection Method II:	Auto. Line Leak Detector(3.0gph for pressure piping)		
Other Pipe Release Detection Method :	Not reported		
Pipe Release Detection Variance :	No Variance		
Spill and Overfill Protection:	Automatic Delivery Shut-off Valve		
Spill and Overfill Protection II:	Tight-Fill Fitting		
Spill and Overfill Protection III:	Tight-Fill Fitting		
Tank Corrosion Protection:	Not reported		
Pipe Corrosion Protection:	Not reported		
Other Corrosion Protection:	None		
Vapor Recovery Equipment Status:	Not reported		
Equipment Installed Date:	Not reported		

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

DIAMOND SHAMROCK 95 (Continued)

U003423870

Equipment Installer: Not reported
Contractor Registration Number: Not reported
Tank Registration Date: 04/24/86
Installer License Number: Not reported
Operator Name: DIAMOND SHAMROCK REFINING AND MARKETING COMPANY
Operator Telephone number: Not reported
Operator Address: SAN ANTONIO, TX 78269 - 6000
Operator Address building: PO BOX 696000
Contact Operator Name: TERRY HANKINS
Contact Operator title: O & E SPECIALIST
Contact Operator Phone: 713-812-3041
Self-Certification date: 080502
Signature Name: RAYMOND MCNIECE
Signature Title Name: O & E SPEC
Signature Type Text: Legally-Authorized Rep of Owner
Certification Submitted Type: A
Registration Self-Certification Flag: 1
Fees Self-Certification Flag: Not reported
Financial Assurance Self-Certification flag: 1
Technical standards Self-Certification flag: 1
UST Delivery Certificate Expiration Date: 20/03/09
Compartment letter: A
Financial Responsibility Type: Financial Test
Corrective Action Met Flag: 1
Third Party Met Flag: 1
Financial Assurance Beginning Date: 12/31/92
Piping Design & Ext. Containment 3 : Not reported
Piping Design & Ext. Containment 4 : Not reported
Type of Piping : Not reported
Internal Tank Lining Date : 00/00/00
Pipe Connectors and Valves 1 : Not reported
Pipe Connectors and Valves 2 : Not reported
Pipe Connectors and Valves 3 : Not reported
Other Tank Corrosion Protection Text: Not reported
Tank Corrosion Protection Variance : No Variance
Pipe Corrosion Protection iii3 : Not reported
Pipe Corrosion Protection Variance : No Variance
Stage 2 Vapor Recry Equipment Status : Not reported
Stage 1 Equipment Installed Date : Not reported
Tank Tested : Not reported
Compartment Capacity : 0000000
Owner ID : 21599
Owner Name : DIAMOND SHAMROCK REFINING AND MARKETING COMPANY
Owner Address : SAN ANTONIO, TX 78269
Owner Contact Telephone : 817-980-2138
Owner Contact Name: BUNLUE BOONPITUCK
Date Registration Form Received : 24/86/04
Facility Type : Retail
Name of Facility Manager : Trinkle
Title of Facility Manager : Not reported
Facility Manager Phone : 210-592-4666
Sign Name on Registration Form : JOHN MCPHERSON
Title of Signer of Registration Form : DIVISION MGR.
Date of Signature on Registration Form : 042486
Facility in Ozone non-attainment area : Not reported

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

DIAMOND SHAMROCK 95 (Continued)

EDR ID Number
EPA ID Number

Database(s)

U003423870

Facility ID:	0032850	Tank Installer:	Not reported
Tank ID:	4	Installation Date:	01/01/87
Tank Emptied:	No	Status Date:	Not reported
Capacity:	12000	Unit ID:	00086288
Tank Material of Construction:	Steel		
Pipe Material of Construction:	Fiberglass-Reinforced Plastic (FRP)		
Other Materials of Construction:	Not reported		
Tank Status:	In Use		
Tank Construction & Containment:	Single Wall		
Pipe Construction & Containment:	Double Wall		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Gasoline		
Compartment Other Substance:	Not reported		
Tank Release Detection Method:	SIR (Stat. Inventory Reconciliation) and Inventory Cntr		
Tank Release Method Detection II:	Not reported		
Tank Release Method Detection III:	Not reported		
Other Tank Release Method Detection:	Not reported		
Tank Release Detection Variance :	No Variance		
Pipe Release Detection Method:	SIR (Stat. Inventory Reconciliation) and Inventory Cntr		
Pipe Release Detection Method II:	Auto. Line Leak Detector(3.0gph for pressure piping)		
Other Pipe Release Detection Method :	Not reported		
Pipe Release Detection Variance :	No Variance		
Spill and Overfill Protection:	Automatic Delivery Shut-off Valve		
Spill and Overfill Protection II:	Tight-Fill Fitting		
Spill and Overfill Protection III:	Tight-Fill Fitting		
Tank Corrosion Protection:	9		
Tank Corrosion Protection II:	Composite Tank (steel w/FRP laminate)		
Pipe Corrosion Protection:	9		
Pipe Corrosion Protection II:	None		
Other Corrosion Protection:	Not reported		
Vapor Recovery Equipment Status:	Stage 2 Vapor Recovery Equipment Installed		
Equipment Installed Date:	Not reported		
Equipment Installer:	Not reported		
Contractor Registration Number:	Not reported		
Tank Registration Date:	04/24/86		
Installer License Number:	Not reported		
Operator Name:	DIAMOND SHAMROCK REFINING AND MARKETING COMPANY		
Operator Telephone number:	Not reported		
Operator Address:			
	SAN ANTONIO, TX 78269 - 6000		
Operator Address building:	PO BOX 696000		
Contact Operator Name:	TERRY HANKINS		
Contact Operator title:	O & E SPECIALIST		
Contact Operator Phone:	713-812-3041		
Self-Certification date:	080502		
Signature Name:	RAYMOND MCNIECE		
Signature Title Name:	O & E SPEC		
Signature Type Text:	Legally-Authorized Rep of Owner		
Certification Submitted Type:	A		
Registration Self-Certification Flag:	1		
Fees Self-Certification Flag:	Not reported		
Financial Assurance Self-Certification flag:	1		
Technical standards Self-Certification flag:	1		
UST Delivery Certificate Expiration Date:	20/03/09		
Compartment letter:	A		
Financial Responsibility Type:	Financial Test		

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

DIAMOND SHAMROCK 95 (Continued)

U003423870

Corrective Action Met Flag: 1
 Third Party Met Flag: 1
 Financial Assurance Beginning Date: 12/31/92
 Piping Design & Ext. Containment 3 : Not reported
 Piping Design & Ext. Containment 4 : Not reported
 Type of Piping : A
 Internal Tank Lining Date : 00/00/00
 Pipe Connectors and Valves 1 : 3
 Pipe Connectors and Valves 2 : 1
 Pipe Connectors and Valves 3 : Not reported
 Other Tank Corrosion Protection Text: Not reported
 Tank Corrosion Protection Variance : No Variance
 Pipe Corrosion Protection iii3 : Not reported
 Pipe Corrosion Protection Variance : No Variance
 Stage 2 Vapor Recry Equipment Status : Not reported
 Stage 1 Equipment Installed Date : Not reported
 Tank Tested : Not reported
 Compartment Capacity : 0000000
 Owner ID : 21599
 Owner Name : DIAMOND SHAMROCK REFINING AND MARKETING COMPANY
 Owner Address : SAN ANTONIO, TX 78269
 Owner Contact Telephone : 817-980-2138
 Owner Contact Name: BUNLUE BOONPITUCK
 Date Registration Form Received : 24/86/04
 Facility Type : Retail
 Name of Facility Manager : Trinkle
 Title of Facility Manager : Not reported
 Facility Manager Phone : 210-592-4666
 Sign Name on Registration Form : JOHN MCPHERSON
 Title of Signer of Registration Form : DIVISION MGR.
 Date of Signature on Registration Form : 042486
 Facility in Ozone non-attainment area : Not reported

The TX UST database contains 1 additional record for this site.
 Please click here or contact your EDR Account Executive for more information.

**15
 NE
 1/2-1
 3826 ft.**

**ALAMO CEMENT CO
 HWY 281
 SAN ANTONIO, TX 78209**

**LUST S105050009
 N/A**

**Relative:
 Higher**

LUST:
 Facility ID: 0049601
 Facility Location: HWY 281 @ BASSE RD
 Reported Date: 6/3/91
 Entered Date: 6/7/91
 RPR Coordinator: RPR
 Region: 13
 Region City ID: SAN ANTONIO
 LPST Id: 099186
 Responsible Party: ALAMO CEMENT
 RP Contact: ART QUIONES
 RP Telephone: 512/651-6624
 County Code: 015
 RP Address: 5675 NE FM 1604
 SAN ANTONIO, TX 78265
 Priority: MINOR SOIL CONTAMINATION - DOES NOT REQUIRE A RAP
 Status: FINAL CONCURRENCE ISSUED, CASE CLOSED

**Actual:
 752 ft.**

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

MAP FINDINGS

ALAMO CEMENT CO (Continued)

EDR ID Number
 EPA ID Number

Database(s)

S105050009

**D16
 WNW
 1/2-1
 3844 ft.**

**PEP BOYS 734
 6200 SAN PEDRO
 SAN ANTONIO, TX 78216**

**UST U003412321
 Ind. Haz Waste N/A**

Site 1 of 3 in cluster D

**Relative:
 Higher**

TX IHW:

**Actual:
 735 ft.**

Registration Number: 75324
 Registration Initial Notification Date: 05/09/1991
 Registration Last Amendment Date: 04/21/1998
 EPA Identification: TXD988035697
 TNRCC Permit Number: Not reported
 Description of Facility Site Location: 6200 SAN PEDRO, SAN ANTONIO, TX
 Site Primary Standard Industrial Code: 00
 Not reported
 Registration is a Generator of Waste: Yes
 Registration is a Receivers of Waste: No
 Registration is a Transporter of Waste: No
 Registration is a Transfer Facility: No
 Mexican Facility: Does not represent a Maquiladora (Mexican Facility)
 Facility Status: Inactive
 Type of Generator: Non-industrial and/or municipal, CESQG
 Company Name: PEP BOYS 734
 Facility County: Not reported
 TNRCC Region: Not reported
 TNRCC Facility ID : Not reported
 Site Owner Tax ID : Not reported
 Site Location Lat/Long : Not reported
 Last Update to NOR Data : Not reported
 Ind. waste permit # : Not reported
 Mun waste permit # : Not reported
 Non Notifier : Not reported
 Facility is STEERS Reporter : Not reported
 Fac Req to Submit Annual Waste Summary Rpt : Not reported
 Facility Involved In Recycling: Not reported
 Mailing Address: 6200 SAN PEDRO
 SAN ANTONIO, TX 78216
 Mailing County: USA
 Mailing Add 3: Not reported
 Contact: David Ezell
 Contact Telephone Number: 512-829-7505

Registration Number: 75324
 Registration Initial Notification Date: 05/09/1991
 Registration Last Amendment Date: 08/23/2001
 EPA Identification: TXD988035697
 TNRCC Permit Number: 029677
 Description of Facility Site Location: 6200 SAN PEDRO AVE, SAN ANTONIO, TX
 Site Primary Standard Industrial Code: 99990
 Nonclassifiable Establishments
 Nonclassifiable
 Nonclassifiable Establishment
 Public Admin.
 Nonclassifiable Establishment
 Public Admin.
 Nonclassifiable Establishment
 Public Admin.
 Registration is a Generator of Waste: Yes

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

PEP BOYS 734 (Continued)

U003412321

Registration is a Receivers of Waste: No
 Registration is a Transporter of Waste: No
 Registration is a Transfer Facility: No
 Mexican Facility: Does not represent a Maquiladora (Mexican Facility)
 Facility Status: Inactive
 Type of Generator: Non-industrial and/or municipal, CESQG
 Company Name: PEP BOYS
 Facility County: Not reported
 TNRCC Region: Not reported
 TNRCC Facility ID : 029677
 Site Owner Tax ID : Not reported
 Site Location Lat/Long : Not reported
 Last Update to NOR Data : 20020202
 Ind. waste permit # : Not reported
 Mun waste permit # : Not reported
 Non Notifier : No
 Facility is STEERS Reporter : No
 Fac Req to Submit Annual Waste Summary Rpt : No
 Facility Involved In Recycling: No
 Mailing Address: 6200 SAN PEDRO AVE
 SAN ANTONIO, TX 78216
 Mailing County: USA
 Mailing Add 3: Not reported
 Contact: David Ezell
 Contact Telephone Number: 512-829-7505

 Registration Number: 75324
 Registration Initial Notification Date: 05/09/1991
 Registration Last Amendment Date: 08/23/2001
 EPA Identification: TXD988035697
 TNRCC Permit Number: 029677
 Description of Facility Site Location: 6200 SAN PEDRO AVE, SAN ANTONIO, TX
 Site Primary Standard Industrial Code: 99990
 Nonclassifiable Establishments
 Nonclassifiable
 Nonclassifiable Establishment
 Public Admin.
 Nonclassifiable Establishment
 Public Admin.
 Nonclassifiable Establishment
 Public Admin.

 Registration is a Generator of Waste: Yes
 Registration is a Receivers of Waste: No
 Registration is a Transporter of Waste: No
 Registration is a Transfer Facility: No
 Mexican Facility: Does not represent a Maquiladora (Mexican Facility)
 Facility Status: Inactive
 Type of Generator: Non-industrial and/or municipal, CESQG
 Company Name: PEP BOYS
 Facility County: Not reported
 TNRCC Region: Not reported
 TNRCC Facility ID : 029677
 Site Owner Tax ID : Not reported
 Site Location Lat/Long : Not reported
 Last Update to NOR Data : 20020202
 Ind. waste permit # : Not reported
 Mun waste permit # : Not reported

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

PEP BOYS 734 (Continued)

U003412321

Non Notifier :	No
Facility is STEERS Reporter :	No
Fac Req to Submit Annual Waste Summary Rpt :	No
Facility Involved In Recycling:	No
Mailing Address:	6200 SAN PEDRO AVE SAN ANTONIO, TX 78216
Mailing County:	USA
Mailing Add 3:	Not reported
Contact:	David Ezell
Contact Telephone Number:	512-829-7505
Registration Number:	75324
Registration Initial Notification Date:	05/09/1991
Registration Last Amendment Date:	04/21/1998
EPA Identification:	TXD988035697
TNRCC Permit Number:	Not reported
Description of Facility Site Location:	6200 SAN PEDRO, SAN ANTONIO, TX
Site Primary Standard Industrial Code:	00
	Not reported
Registration is a Generator of Waste:	Yes
Registration is a Receivers of Waste:	No
Registration is a Transporter of Waste:	No
Registration is a Transfer Facility:	No
Mexican Facility:	Does not represent a Maquiladora (Mexican Facility)
Facility Status:	Inactive
Type of Generator:	Non-industrial and/or municipal, CESQG
Company Name:	PEP BOYS 734
Facility County:	Not reported
TNRCC Region:	Not reported
TNRCC Facility ID :	Not reported
Site Owner Tax ID :	Not reported
Site Location Lat/Long :	Not reported
Last Update to NOR Data :	Not reported
Ind. waste permit # :	Not reported
Mun waste permit # :	Not reported
Non Notifier :	Not reported
Facility is STEERS Reporter :	Not reported
Fac Req to Submit Annual Waste Summary Rpt :	Not reported
Facility Involved In Recycling:	Not reported
Mailing Address:	6200 SAN PEDRO SAN ANTONIO, TX 78216
Mailing County:	USA
Mailing Add 3:	Not reported
Contact:	David Ezell
Contact Telephone Number:	512-829-7505

The TX IHW database may contain additional details for this site.
 Please click here or contact your EDR Account Executive for more information.

UST:

Facility ID:	0048296	Tank Installer:	Not reported
Tank ID:	1	Installation Date:	01/01/88
Tank Emptied:	No	Status Date:	10/07/98
Capacity:	550	Unit ID:	00125730
Tank Material of Construction:	Fiberglass-Reinforced Plastic (FRP)		
Pipe Material of Construction:	Fiberglass-Reinforced Plastic (FRP)		
Other Materials of Construction:	Not reported		
Tank Status:	Removed from the Ground		

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

PEP BOYS 734 (Continued)

U003412321

Tank Construction & Containment:	Double Wall
Pipe Construction & Containment:	Double Wall
Other Construction & Containment:	Not reported
Compartment Substance Stored:	Used Oil
Compartment Other Substance:	Not reported
Tank Release Detection Method:	Interstitial Monitoring within Secondary Wall/Jacket
Tank Release Method Detection II:	Not reported
Tank Release Method Detection III:	Not reported
Other Tank Release Method Detection:	Tightness Testing
Tank Release Detection Variance :	No Variance
Pipe Release Detection Method:	Not reported
Other Pipe Release Detection Method :	Tightness Testing
Pipe Release Detection Variance :	No Variance
Spill and Overfill Protection:	Not reported
Tank Corrosion Protection:	None
Pipe Corrosion Protection:	Not reported
Other Corrosion Protection:	Non Corrodible Material
Vapor Recovery Equipment Status:	Not reported
Equipment Installed Date:	Not reported
Equipment Installer:	Not reported
Contractor Registration Number:	Not reported
Tank Registration Date:	05/01/89
Installer License Number:	Not reported
Operator Name:	Not reported
Operator Telephone number:	Not reported
Operator Address:	
Operator Address building:	Not reported
Contact Operator Name:	
Contact Operator title:	Not reported
Contact Operator Phone:	Not reported
Self-Certification date:	Not reported
Signature Name:	Not reported
Signature Title Name:	Not reported
Signature Type Text:	Not reported
Certification Submitted Type:	Not reported
Registration Self-Certification Flag:	Not reported
Fees Self-Certification Flag:	Not reported
Financial Assurance Self-Certification flag:	Not reported
Technical standards Self-Certification flag:	Not reported
UST Delivery Certificate Expiration Date:	Not reported
Compartment letter:	Not reported
Financial Responsibility Type:	Not reported
Corrective Action Met Flag:	Not reported
Third Party Met Flag:	Not reported
Financial Assurance Beginning Date:	Not reported
Piping Design & Ext. Containment 3 :	Not reported
Piping Design & Ext. Containment 4 :	Not reported
Type of Piping :	Not reported
Internal Tank Lining Date :	00/00/00
Pipe Connectors and Valves 1 :	Not reported
Pipe Connectors and Valves 2 :	Not reported
Pipe Connectors and Valves 3 :	Not reported
Other Tank Corrosion Protection Text:	Not reported
Tank Corrosion Protection Variance :	No Variance
Pipe Corrosion Protection iii3 :	Not reported
Pipe Corrosion Protection Variance :	No Variance
Stage 2 Vapor Recry Equipment Status :	Not reported

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

MAP FINDINGS

PEP BOYS 734 (Continued)

EDR ID Number
 EPA ID Number

Database(s)

U003412321

Stage 1 Equipment Installed Date : Not reported
 Tank Tested : Not reported
 Compartment Capacity : 0000000
 Owner ID : Not reported
 Owner Name : PEP BOYS
 Owner Address : 3111 W ALLEGHENY Ave
 PHILADELPHIA, PA 19132
 Owner Contact Telephone : 215-430-9017
 Owner Contact Name: ED LAYTON
 Date Registration Form Received : 01/89/05
 Facility Type : Retail
 Name of Facility Manager : CRAIG HIGDON
 Title of Facility Manager : Not reported
 Facility Manager Phone : 5128297505
 Sign Name on Registration Form : CAROL CHASIN
 Title of Signer of Registration Form : ENVIRO COMPLIANCE
 Date of Signature on Registration Form : 032492
 Facility in Ozone non-attainment area : Not reported

**D17
 WNW
 1/2-1
 3844 ft.**

**THE PEP BOYS SAN PEDRO
 6200 SAN PEDRO AVE
 SAN ANTONIO, TX 78216**

**RCRIS-SQG 1004785696
 FINDS TXD988035697**

Site 2 of 3 in cluster D

**Relative:
 Higher**

RCRIS:
 Owner: THE PEP BOYS
 (215) 227-9277
 EPA ID: TXD988035697
 Contact: CAROL CHASIN
 (215) 227-9277
 Classification: Small Quantity Generator
 Used Oil Recyc: No
 TSDF Activities: Not reported
 Violation Status: No violations found

**Actual:
 735 ft.**

FINDS:
 Other Pertinent Environmental Activity Identified at Site:
 Facility Registry System (FRS)
 Resource Conservation and Recovery Act Information system (RCRAINFO)

**18
 WSW
 1/2-1
 3923 ft.**

**ALS CORNER STORE
 5407 SAN PEDRO AVE
 SAN ANTONIO, TX 78212**

**UST U003424105
 N/A**

**Relative:
 Higher**

UST:
 Facility ID: 0028962 Tank Installer: Not reported
 Tank ID: 2 Installation Date: 01/01/73
 Tank Emptied: No Status Date: Not reported
 Capacity: 8000 Unit ID: 00076395
 Tank Material of Construction: Steel
 Pipe Material of Construction: Fiberglass-Reinforced Plastic (FRP)
 Other Materials of Construction: Not reported
 Tank Status: In Use
 Tank Construction & Containment: Single Wall

**Actual:
 748 ft.**

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

ALS CORNER STORE (Continued)

U003424105

Tank Construction & Containment II:	Excavation/Trench Liner
Pipe Construction & Containment:	Single Wall
Pipe Construction & Containment II:	Excavation/Trench Liner
Other Construction & Containment:	Not reported
Compartment Substance Stored:	Gasoline
Compartment Other Substance:	Not reported
Tank Release Detection Method:	Vapor Monitoring
Tank Release Method Detection II:	Not reported
Tank Release Method Detection III:	Not reported
Other Tank Release Method Detection:	Not reported
Tank Release Detection Variance :	No Variance
Pipe Release Detection Method:	Triennial Tightness Test(for suction/gravity piping)
Other Pipe Release Detection Method :	Not reported
Pipe Release Detection Variance :	No Variance
Spill and Overfill Protection:	Auto. Flow Restrictor Valve
Spill and Overfill Protection II:	Factory-Built Spill Container/Bucket/Sump
Spill and Overfill Protection III:	Factory-Built Spill Container/Bucket/Sump
Tank Corrosion Protection:	Composite Tank (steel w/FRP laminate)
Pipe Corrosion Protection:	Composite Tank (steel w/FRP laminate)
Pipe Corrosion Protection II:	None
Other Corrosion Protection:	Not reported
Vapor Recovery Equipment Status:	Not reported
Equipment Installed Date:	Not reported
Equipment Installer:	Not reported
Contractor Registration Number:	Not reported
Tank Registration Date:	05/08/86
Installer License Number:	Not reported
Operator Name:	SAMIR S BHAYANI
Operator Telephone number:	Not reported
Operator Address:	5407 SAN PEDRO AVE
	SAN ANTONIO, TX 78212
Operator Address building:	Not reported
Contact Operator Name:	SAMIR BHAYANI
Contact Operator title:	MANAGER
Contact Operator Phone:	210-733-5244
Self-Certification date:	100702
Signature Name:	SAMIR S BHAYANI
Signature Title Name:	MANAGER
Signature Type Text:	Legally-Authorized Rep of Owner
Certification Submitted Type:	A
Registration Self-Certification Flag:	1
Fees Self-Certification Flag:	Not reported
Financial Assurance Self-Certification flag:	1
Technical standards Self-Certification flag:	1
UST Delivery Certificate Expiration Date:	20/03/02
Compartment letter:	A
Financial Responsibility Type:	Insurance or Risk Retention Group
Corrective Action Met Flag:	1
Third Party Met Flag:	1
Financial Assurance Beginning Date:	03/01/94
Piping Design & Ext. Containment 3 :	Not reported
Piping Design & Ext. Containment 4 :	Not reported
Type of Piping :	B
Internal Tank Lining Date :	00/00/00
Pipe Connectors and Valves 1 :	Not reported
Pipe Connectors and Valves 2 :	Not reported

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

ALS CORNER STORE (Continued)

U003424105

Pipe Connectors and Valves 3 :	Not reported		
Other Tank Corrosion Protection Text:	Not reported		
Tank Corrosion Protection Variance :	No Variance		
Pipe Corrosion Protection iii3 :	Not reported		
Pipe Corrosion Protection Variance :	No Variance		
Stage 2 Vapor Recry Equipment Status :	Not reported		
Stage 1 Equipment Installed Date :	Not reported		
Tank Tested :	Tested		
Compartment Capacity :	0000000		
Owner ID :	56052		
Owner Name :	APM ENTERPRISES INC		
Owner Address :	5407 SAN PEDRO AVE SAN ANTONIO, TX 78212		
Owner Contact Telephone :	210-733-5244		
Owner Contact Name:	SAMIR BHAYANI		
Date Registration Form Received :	08/86/05		
Facility Type :	Retail		
Name of Facility Manager :	BHAYANI		
Title of Facility Manager :	MANAGER		
Facility Manager Phone :	210-733-5244		
Sign Name on Registration Form :	R.L. MCDANIEL		
Title of Signer of Registration Form :	PRES.		
Date of Signature on Registration Form :	050586		
Facility in Ozone non-attainment area :	Not reported		
Facility ID:	0028962	Tank Installer:	Not reported
Tank ID:	1	Installation Date:	01/01/73
Tank Emptied:	No	Status Date:	Not reported
Capacity:	8000	Unit ID:	00076396
Tank Material of Construction:	Steel		
Pipe Material of Construction:	Fiberglass-Reinforced Plastic (FRP)		
Other Materials of Construction:	Not reported		
Tank Status:	In Use		
Tank Construction & Containment:	Single Wall		
Tank Construction & Containment II:	Excavation/Trench Liner		
Pipe Construction & Containment:	Single Wall		
Pipe Construction & Containment II:	Excavation/Trench Liner		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Gasoline		
Compartment Other Substance:	Not reported		
Tank Release Detection Method:	Vapor Monitoring		
Tank Release Method Detection II:	Not reported		
Tank Release Method Detection III:	Not reported		
Other Tank Release Method Detection:	Not reported		
Tank Release Detection Variance :	No Variance		
Pipe Release Detection Method:	Triennial Tightness Test(for suction/gravity piping)		
Other Pipe Release Detection Method :	Not reported		
Pipe Release Detection Variance :	No Variance		
Spill and Overfill Protection:	Auto. Flow Restrictor Valve		
Spill and Overfill Protection II:	Factory-Built Spill Container/Bucket/Sump		
Spill and Overfill Protection III:	Factory-Built Spill Container/Bucket/Sump		
Tank Corrosion Protection:	Composite Tank (steel w/FRP laminate)		
Pipe Corrosion Protection:	Composite Tank (steel w/FRP laminate)		
Pipe Corrosion Protection II:	None		
Other Corrosion Protection:	Not reported		
Vapor Recovery Equipment Status:	Not reported		
Equipment Installed Date:	Not reported		

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

ALS CORNER STORE (Continued)

U003424105

Equipment Installer: Not reported
Contractor Registration Number: Not reported
Tank Registration Date: 05/08/86
Installer License Number: Not reported
Operator Name: SAMIR S BHAYANI
Operator Telephone number: Not reported
Operator Address: 5407 SAN PEDRO AVE

SAN ANTONIO, TX 78212
Operator Address building: Not reported
Contact Operator Name: SAMIR BHAYANI
Contact Operator title: MANAGER
Contact Operator Phone: 210-733-5244
Self-Certification date: 100702
Signature Name: SAMIR S BHAYANI
Signature Title Name: MANAGER
Signature Type Text: Legally-Authorized Rep of Owner
Certification Submitted Type: A
Registration Self-Certification Flag: 1
Fees Self-Certification Flag: Not reported
Financial Assurance Self-Certification flag: 1
Technical standards Self-Certification flag: 1
UST Delivery Certificate Expiration Date: 20/03/02
Compartment letter: A
Financial Responsibility Type: Insurance or Risk Retention Group
Corrective Action Met Flag: 1
Third Party Met Flag: 1
Financial Assurance Beginning Date: 03/01/94
Piping Design & Ext. Containment 3 : Not reported
Piping Design & Ext. Containment 4 : Not reported
Type of Piping : B
Internal Tank Lining Date : 00/00/00
Pipe Connectors and Valves 1 : Not reported
Pipe Connectors and Valves 2 : Not reported
Pipe Connectors and Valves 3 : Not reported
Other Tank Corrosion Protection Text: Not reported
Tank Corrosion Protection Variance : No Variance
Pipe Corrosion Protection iii3 : Not reported
Pipe Corrosion Protection Variance : No Variance
Stage 2 Vapor Recry Equipment Status : Not reported
Stage 1 Equipment Installed Date : Not reported
Tank Tested : Tested
Compartment Capacity : 0000000
Owner ID : 56052
Owner Name : APM ENTERPRISES INC
Owner Address : 5407 SAN PEDRO AVE
SAN ANTONIO, TX 78212

Owner Contact Telephone : 210-733-5244
Owner Contact Name: SAMIR BHAYANI
Date Registration Form Received : 08/86/05
Facility Type : Retail
Name of Facility Manager : BHAYANI
Title of Facility Manager : MANAGER
Facility Manager Phone : 210-733-5244
Sign Name on Registration Form : R.L. MCDANIEL
Title of Signer of Registration Form : PRES.
Date of Signature on Registration Form : 050586

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

MAP FINDINGS

ALS CORNER STORE (Continued)

EDR ID Number
 EPA ID Number

Facility in Ozone non-attainment area : Not reported

U003424105

**D19
 WNW
 1/2-1
 3952 ft.**

**OFFICES TO GO
 6234 SAN PEDRO AVE
 SAN ANTONIO, TX 78212**

**LUST U003412314
 UST N/A**

Site 3 of 3 in cluster D

**Relative:
 Higher**

LUST:

Facility ID: 0048108
 Facility Location: 6234 SAN PEDRO AVE
 Reported Date: 8/1/89
 Entered Date: 8/1/89
 RPR Coordinator: RPR
 Region: 13
 Region City ID: SAN ANTONIO
 LPST Id: 093357
 Responsible Party: THE BALDWIN CO
 RP Contact: PETER BALDWIN
 RP Telephone: 214/247-1700
 County Code: 015
 RP Address: 2711 AFB FWY STE 512
 DALLAS, TX 75234
 Priority: SOIL CONTAMINATION ONLY, REQUIRES FULL SITE ASSESSMENT & RAP
 Status: FINAL CONCURRENCE ISSUED, CASE CLOSED

**Actual:
 738 ft.**

UST:

Facility ID:	0048108	Tank Installer:	Not reported
Tank ID:	1	Installation Date:	01/01/75
Tank Emptied:	No	Status Date:	03/08/89
Capacity:	3000	Unit ID:	00125326
Tank Material of Construction:	Steel		
Pipe Material of Construction:	Not reported		
Other Materials of Construction:	Not reported		
Tank Status:	Removed from the Ground		
Tank Construction & Containment:	Not reported		
Pipe Construction & Containment:	Not reported		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Gasoline		
Compartment Other Substance:	Not reported		
Tank Release Detection Method:	Not reported		
Tank Release Method Detection II:	Not reported		
Tank Release Method Detection III:	Not reported		
Other Tank Release Method Detection:	None		
Tank Release Detection Variance :	No Variance		
Pipe Release Detection Method:	Not reported		
Other Pipe Release Detection Method :	None		
Pipe Release Detection Variance :	No Variance		
Spill and Overfill Protection:	Not reported		
Tank Corrosion Protection:	Not reported		
Pipe Corrosion Protection:	Not reported		
Other Corrosion Protection:	None		
Vapor Recovery Equipment Status:	Not reported		
Equipment Installed Date:	Not reported		
Equipment Installer:	Not reported		
Contractor Registration Number:	Not reported		
Tank Registration Date:	03/24/89		
Installer License Number:	Not reported		

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

OFFICES TO GO (Continued)

U003412314

Operator Name:	Not reported
Operator Telephone number:	Not reported
Operator Address:	
Operator Address building:	Not reported
Contact Operator Name:	
Contact Operator title:	Not reported
Contact Operator Phone:	Not reported
Self-Certification date:	Not reported
Signature Name:	Not reported
Signature Title Name:	Not reported
Signature Type Text:	Not reported
Certification Submitted Type:	Not reported
Registration Self-Certification Flag:	Not reported
Fees Self-Certification Flag:	Not reported
Financial Assurance Self-Certification flag:	Not reported
Technical standards Self-Certification flag:	Not reported
UST Delivery Certificate Expiration Date:	Not reported
Compartment letter:	Not reported
Financial Responsibility Type:	Not reported
Corrective Action Met Flag:	Not reported
Third Party Met Flag:	Not reported
Financial Assurance Beginning Date:	Not reported
Piping Design & Ext. Containment 3 :	Not reported
Piping Design & Ext. Containment 4 :	Not reported
Type of Piping :	Not reported
Internal Tank Lining Date :	00/00/00
Pipe Connectors and Valves 1 :	Not reported
Pipe Connectors and Valves 2 :	Not reported
Pipe Connectors and Valves 3 :	Not reported
Other Tank Corrosion Protection Text:	None
Tank Corrosion Protection Variance :	No Variance
Pipe Corrosion Protection iii3 :	Not reported
Pipe Corrosion Protection Variance :	No Variance
Stage 2 Vapor Recry Equipment Status :	Not reported
Stage 1 Equipment Installed Date :	Not reported
Tank Tested :	Not reported
Compartment Capacity :	0000000
Owner ID :	Not reported
Owner Name :	MBM JOINT VENTURE
Owner Address :	2711 LBJ FWY STE 512 DALLAS, TX 75234
Owner Contact Telephone :	214-247-1700
Owner Contact Name:	
Date Registration Form Received :	24/89/03
Facility Type :	None of the above, or unidentified
Name of Facility Manager :	KITTRELL, JOHN
Title of Facility Manager :	AGENT
Facility Manager Phone :	5123423535
Sign Name on Registration Form :	BALDWIN, PETER W.
Title of Signer of Registration Form :	MANAGING VENTURER
Date of Signature on Registration Form :	032289
Facility in Ozone non-attainment area :	Not reported

MAP FINDINGS

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

Site

Database(s)

EDR ID Number
 EPA ID Number

20
NW
1/2-1
4231 ft.

BOYD CORP
6325 SAN PEDRO
SAN ANTONIO, TX 78216

LUST **S105049952**
N/A

Relative:
Higher

LUST:

Facility ID: 0008019
 Facility Location: 6325 SAN PEDRO
 Reported Date: 2/11/91
 Entered Date: 4/23/91
 RPR Coordinator: RPR
 Region: 13
 Region City ID: SAN ANTONIO
 LPST Id: 098723
 Responsible Party: BOYD CORP
 RP Contact: TONY MORELAND
 RP Telephone: 512/344-9222
 County Code: 015
 RP Address: 6325 SAN PEDRO
 SAN ANTONIO, TX 78216

Actual:
738 ft.

Priority: GROUNDWATER OTHER THAN 1B, SITE CHARACTERIZATION INCOMPLETE
 Status: FINAL CONCURRENCE ISSUED, CASE CLOSED

E21
NW
1/2-1
4505 ft.

CRYSTAL CAR WASH
6402 SAN PEDRO
SAN ANTONIO, TX 78216

LUST **U003423894**
UST **N/A**

Site 1 of 2 in cluster E

Relative:
Higher

LUST:

Facility ID: 0034594
 Facility Location: 6402 SAN PEDRO AVE
 Reported Date: 11/28/89
 Entered Date: 12/11/89
 RPR Coordinator: HELEN WELCH
 Region: 13
 Region City ID: SAN ANTONIO
 LPST Id: 094093
 Responsible Party: ROGERS HAPPY
 RP Contact: HAPPY ROGERS
 RP Telephone: 512/824-4363
 County Code: 015
 RP Address: 550 GARRATY RD
 SAN ANTONIO, TX 78209

Actual:
747 ft.

Priority: SOIL CONTAMINATION ONLY, REQUIRES FULL SITE ASSESSMENT & RAP
 Status: FINAL CONCURRENCE ISSUED, CASE CLOSED

UST:

Facility ID:	0034594	Tank Installer:	Not reported
Tank ID:	1	Installation Date:	01/01/73
Tank Emptied:	No	Status Date:	11/09/89
Capacity:	4000	Unit ID:	00091429
Tank Material of Construction:	Steel		
Pipe Material of Construction:	Not reported		
Other Materials of Construction:	Not reported		
Tank Status:	Removed from the Ground		
Tank Construction & Containment:	Not reported		
Pipe Construction & Containment:	Not reported		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Gasoline		

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

CRYSTAL CAR WASH (Continued)

U003423894

Compartment Other Substance:	Not reported
Tank Release Detection Method:	Not reported
Tank Release Method Detection II:	Not reported
Tank Release Method Detection III:	Not reported
Other Tank Release Method Detection:	None
Tank Release Detection Variance :	No Variance
Pipe Release Detection Method:	Not reported
Other Pipe Release Detection Method :	None
Pipe Release Detection Variance :	No Variance
Spill and Overfill Protection:	Not reported
Tank Corrosion Protection:	Not reported
Pipe Corrosion Protection:	Not reported
Other Corrosion Protection:	None
Vapor Recovery Equipment Status:	Not reported
Equipment Installed Date:	Not reported
Equipment Installer:	Not reported
Contractor Registration Number:	Not reported
Tank Registration Date:	05/08/86
Installer License Number:	Not reported
Operator Name:	Not reported
Operator Telephone number:	Not reported
Operator Address:	
Operator Address building:	Not reported
Contact Operator Name:	
Contact Operator title:	Not reported
Contact Operator Phone:	Not reported
Self-Certification date:	Not reported
Signature Name:	Not reported
Signature Title Name:	Not reported
Signature Type Text:	Not reported
Certification Submitted Type:	Not reported
Registration Self-Certification Flag:	Not reported
Fees Self-Certification Flag:	Not reported
Financial Assurance Self-Certification flag:	Not reported
Technical standards Self-Certification flag:	Not reported
UST Delivery Certificate Expiration Date:	Not reported
Compartment letter:	Not reported
Financial Responsibility Type:	Not reported
Corrective Action Met Flag:	Not reported
Third Party Met Flag:	Not reported
Financial Assurance Beginning Date:	Not reported
Piping Design & Ext. Containment 3 :	Not reported
Piping Design & Ext. Containment 4 :	Not reported
Type of Piping :	Not reported
Internal Tank Lining Date :	00/00/00
Pipe Connectors and Valves 1 :	Not reported
Pipe Connectors and Valves 2 :	Not reported
Pipe Connectors and Valves 3 :	Not reported
Other Tank Corrosion Protection Text:	Not reported
Tank Corrosion Protection Variance :	No Variance
Pipe Corrosion Protection iii3 :	Not reported
Pipe Corrosion Protection Variance :	No Variance
Stage 2 Vapor Recry Equipment Status :	Not reported
Stage 1 Equipment Installed Date :	Not reported
Tank Tested :	Not reported
Compartment Capacity :	0000000
Owner ID :	Not reported

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s)
EDR ID Number
EPA ID Number

CRYSTAL CAR WASH (Continued)

U003423894

Owner Name : RODGERS WALACE
Owner Address : 550 GARRATY RD
SAN ANTONIO, TX 78209
Owner Contact Telephone : (512) 824-4363
Owner Contact Name: WALACE RODGERS
Date Registration Form Received : 08/86/05
Facility Type : None of the above, or unidentified
Name of Facility Manager : WALACE RODGERS
Title of Facility Manager : Not reported
Facility Manager Phone : 5128244363
Sign Name on Registration Form : R. WATERS
Title of Signer of Registration Form : MGR.
Date of Signature on Registration Form : 05/04/86
Facility in Ozone non-attainment area : Not reported

Facility ID: 0034594 Tank Installer: Not reported
Tank ID: 2 Installation Date: 01/01/73
Tank Emptied: No Status Date: 11/09/89
Capacity: 10000 Unit ID: 00091430

Tank Material of Construction: Steel
Pipe Material of Construction: Not reported
Other Materials of Construction: Not reported
Tank Status: Removed from the Ground
Tank Construction & Containment: Not reported
Pipe Construction & Containment: Not reported
Other Construction & Containment: Not reported
Compartment Substance Stored: Gasoline
Compartment Other Substance: Not reported
Tank Release Detection Method: Not reported
Tank Release Method Detection II: Not reported
Tank Release Method Detection III: Not reported
Other Tank Release Method Detection: None
Tank Release Detection Variance : No Variance
Pipe Release Detection Method: Not reported
Other Pipe Release Detection Method : None
Pipe Release Detection Variance : No Variance
Spill and Overfill Protection: Not reported
Tank Corrosion Protection: Not reported
Pipe Corrosion Protection: Not reported
Other Corrosion Protection: None
Vapor Recovery Equipment Status: Not reported
Equipment Installed Date: Not reported
Equipment Installer: Not reported
Contractor Registration Number: Not reported
Tank Registration Date: 05/08/86
Installer License Number: Not reported
Operator Name: Not reported
Operator Telephone number: Not reported
Operator Address: Not reported
Operator Address building: Not reported
Contact Operator Name: Not reported
Contact Operator title: Not reported
Contact Operator Phone: Not reported
Self-Certification date: Not reported
Signature Name: Not reported
Signature Title Name: Not reported
Signature Type Text: Not reported

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

CRYSTAL CAR WASH (Continued)

U003423894

Certification Submitted Type:	Not reported		
Registration Self-Certification Flag:	Not reported		
Fees Self-Certification Flag:	Not reported		
Financial Assurance Self-Certification flag:	Not reported		
Technical standards Self-Certification flag:	Not reported		
UST Delivery Certificate Expiration Date:	Not reported		
Compartment letter:	Not reported		
Financial Responsibility Type:	Not reported		
Corrective Action Met Flag:	Not reported		
Third Party Met Flag:	Not reported		
Financial Assurance Beginning Date:	Not reported		
Piping Design & Ext. Containment 3 :	Not reported		
Piping Design & Ext. Containment 4 :	Not reported		
Type of Piping :	Not reported		
Internal Tank Lining Date :	00/00/00		
Pipe Connectors and Valves 1 :	Not reported		
Pipe Connectors and Valves 2 :	Not reported		
Pipe Connectors and Valves 3 :	Not reported		
Other Tank Corrosion Protection Text:	Not reported		
Tank Corrosion Protection Variance :	No Variance		
Pipe Corrosion Protection iii3 :	Not reported		
Pipe Corrosion Protection Variance :	No Variance		
Stage 2 Vapor Recy Equipment Status :	Not reported		
Stage 1 Equipment Installed Date :	Not reported		
Tank Tested :	Not reported		
Compartment Capacity :	0000000		
Owner ID :	Not reported		
Owner Name :	RODGERS WALACE		
Owner Address :	550 GARRATY RD		
	SAN ANTONIO, TX 78209		
Owner Contact Telephone :	(512) 824-4363		
Owner Contact Name:	WALACE RODGERS		
Date Registration Form Received :	08/86/05		
Facility Type :	None of the above, or unidentified		
Name of Facility Manager :	WALACE RODGERS		
Title of Facility Manager :	Not reported		
Facility Manager Phone :	5128244363		
Sign Name on Registration Form :	R. WATERS		
Title of Signer of Registration Form :	MGR.		
Date of Signature on Registration Form :	050486		
Facility in Ozone non-attainment area :	Not reported		
Facility ID:	0034594	Tank Installer:	Not reported
Tank ID:	3	Installation Date:	01/01/73
Tank Emptied:	No	Status Date:	11/09/89
Capacity:	10000	Unit ID:	00091431
Tank Material of Construction:	Steel		
Pipe Material of Construction:	Not reported		
Other Materials of Construction:	Not reported		
Tank Status:	Removed from the Ground		
Tank Construction & Containment:	Not reported		
Pipe Construction & Containment:	Not reported		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Gasoline		
Compartment Other Substance:	Not reported		
Tank Release Detection Method:	Not reported		
Tank Release Method Detection II:	Not reported		

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

CRYSTAL CAR WASH (Continued)

U003423894

Tank Release Method Detection III:	Not reported
Other Tank Release Method Detection:	None
Tank Release Detection Variance :	No Variance
Pipe Release Detection Method:	Not reported
Other Pipe Release Detection Method :	None
Pipe Release Detection Variance :	No Variance
Spill and Overfill Protection:	Not reported
Tank Corrosion Protection:	Not reported
Pipe Corrosion Protection:	Not reported
Other Corrosion Protection:	None
Vapor Recovery Equipment Status:	Not reported
Equipment Installed Date:	Not reported
Equipment Installer:	Not reported
Contractor Registration Number:	Not reported
Tank Registration Date:	05/08/86
Installer License Number:	Not reported
Operator Name:	Not reported
Operator Telephone number:	Not reported
Operator Address:	
Operator Address building:	Not reported
Contact Operator Name:	
Contact Operator title:	Not reported
Contact Operator Phone:	Not reported
Self-Certification date:	Not reported
Signature Name:	Not reported
Signature Title Name:	Not reported
Signature Type Text:	Not reported
Certification Submitted Type:	Not reported
Registration Self-Certification Flag:	Not reported
Fees Self-Certification Flag:	Not reported
Financial Assurance Self-Certification flag:	Not reported
Technical standards Self-Certification flag:	Not reported
UST Delivery Certificate Expiration Date:	Not reported
Compartment letter:	Not reported
Financial Responsibility Type:	Not reported
Corrective Action Met Flag:	Not reported
Third Party Met Flag:	Not reported
Financial Assurance Beginning Date:	Not reported
Piping Design & Ext. Containment 3 :	Not reported
Piping Design & Ext. Containment 4 :	Not reported
Type of Piping :	Not reported
Internal Tank Lining Date :	00/00/00
Pipe Connectors and Valves 1 :	Not reported
Pipe Connectors and Valves 2 :	Not reported
Pipe Connectors and Valves 3 :	Not reported
Other Tank Corrosion Protection Text:	Not reported
Tank Corrosion Protection Variance :	No Variance
Pipe Corrosion Protection iii3 :	Not reported
Pipe Corrosion Protection Variance :	No Variance
Stage 2 Vapor Recry Equipment Status :	Not reported
Stage 1 Equipment Installed Date :	Not reported
Tank Tested :	Not reported
Compartment Capacity :	0000000
Owner ID :	Not reported
Owner Name :	RODGERS WALACE
Owner Address :	550 GARRATY RD SAN ANTONIO, TX 78209

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

CRYSTAL CAR WASH (Continued)

U003423894

Owner Contact Telephone : (512) 824-4363
 Owner Contact Name: WALACE RODGERS
 Date Registration Form Received : 08/86/05
 Facility Type : None of the above, or unidentified
 Name of Facility Manager : WALACE RODGERS
 Title of Facility Manager : Not reported
 Facility Manager Phone : 5128244363
 Sign Name on Registration Form : R. WATERS
 Title of Signer of Registration Form : MGR.
 Date of Signature on Registration Form : 050486
 Facility in Ozone non-attainment area : Not reported

**E22
 NW
 1/2-1
 4574 ft.**

**FDIC FOR NORTHSIDE BANK
 6411 SAN PEDRO
 SAN ANTONIO, TX 78201**

**LUST U003424007
 UST N/A**

Site 2 of 2 in cluster E

**Relative:
 Higher**

**Actual:
 749 ft.**

LUST:
 Facility ID: 0064133
 Facility Location: 6411 SAN PEDRO
 Reported Date: 3/1/93
 Entered Date: 4/26/93
 RPR Coordinator: RPR
 Region: 13
 Region City ID: SAN ANTONIO
 LPST Id: 106326
 Responsible Party: FDIC
 RP Contact: PATTY MCCARROLL
 RP Telephone: 210/731-3015
 County Code: 015
 RP Address: PO BOX 101508
 SAN ANTONIO, TX 78201 - 9508
 Priority: SOIL CONTAMINATION - NO REMEDIAL ACTION REQUIRED
 Status: FINAL CONCURRENCE ISSUED, CASE CLOSED

UST:
 Facility ID: 0064133
 Tank ID: 1
 Tank Emptied: No
 Capacity: 550
 Tank Material of Construction: Not reported
 Pipe Material of Construction: Not reported
 Other Materials of Construction: Not reported
 Tank Status: Removed from the Ground
 Tank Construction & Containment: Not reported
 Pipe Construction & Containment: Not reported
 Other Construction & Containment: Not reported
 Compartment Substance Stored: Used Oil
 Compartment Other Substance: Not reported
 Tank Release Detection Method: Not reported
 Tank Release Method Detection II: Not reported
 Tank Release Method Detection III: Not reported
 Other Tank Release Method Detection: None
 Tank Release Detection Variance : No Variance
 Pipe Release Detection Method: Not reported
 Other Pipe Release Detection Method : None
 Pipe Release Detection Variance : No Variance
 Spill and Overfill Protection: Not reported

Tank Installer: Not reported
 Installation Date: Not reported
 Status Date: 02/03/93
 Unit ID: 00147586

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

FDIC FOR NORTHSIDE BANK (Continued)

U003424007

Tank Corrosion Protection:	Not reported
Pipe Corrosion Protection:	Not reported
Other Corrosion Protection:	None
Vapor Recovery Equipment Status:	Not reported
Equipment Installed Date:	Not reported
Equipment Installer:	Not reported
Contractor Registration Number:	Not reported
Tank Registration Date:	01/11/93
Installer License Number:	Not reported
Operator Name:	Not reported
Operator Telephone number:	Not reported
Operator Address:	
Operator Address building:	Not reported
Contact Operator Name:	
Contact Operator title:	Not reported
Contact Operator Phone:	Not reported
Self-Certification date:	Not reported
Signature Name:	Not reported
Signature Title Name:	Not reported
Signature Type Text:	Not reported
Certification Submitted Type:	Not reported
Registration Self-Certification Flag:	Not reported
Fees Self-Certification Flag:	Not reported
Financial Assurance Self-Certification flag:	Not reported
Technical standards Self-Certification flag:	Not reported
UST Delivery Certificate Expiration Date:	Not reported
Compartment letter:	Not reported
Financial Responsibility Type:	Not reported
Corrective Action Met Flag:	Not reported
Third Party Met Flag:	Not reported
Financial Assurance Beginning Date:	Not reported
Piping Design & Ext. Containment 3 :	Not reported
Piping Design & Ext. Containment 4 :	Not reported
Type of Piping :	Not reported
Internal Tank Lining Date :	00/00/00
Pipe Connectors and Valves 1 :	Not reported
Pipe Connectors and Valves 2 :	Not reported
Pipe Connectors and Valves 3 :	Not reported
Other Tank Corrosion Protection Text:	None
Tank Corrosion Protection Variance :	No Variance
Pipe Corrosion Protection iii3 :	Not reported
Pipe Corrosion Protection Variance :	No Variance
Stage 2 Vapor Recry Equipment Status :	Not reported
Stage 1 Equipment Installed Date :	Not reported
Tank Tested :	Tested
Compartment Capacity :	0000000
Owner ID :	Not reported
Owner Name :	FDIC FOR NORTHSIDE BANK
Owner Address :	SAN ANTONIO, TX 78201
Owner Contact Telephone :	(512) 731-3015
Owner Contact Name:	PATTY MCCARROLL
Date Registration Form Received :	11/93/01
Facility Type :	None of the above, or unidentified
Name of Facility Manager :	\$
Title of Facility Manager :	Not reported
Facility Manager Phone :	Not reported
Sign Name on Registration Form :	PATTY CARROLL

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

MAP FINDINGS

FDIC FOR NORTHSIDE BANK (Continued)

EDR ID Number
 EPA ID Number

Database(s)

Title of Signer of Registration Form : ENVIRO COORDINATOR
 Date of Signature on Registration Form : 011193
 Facility in Ozone non-attainment area : Not reported

U003424007

**23
 NW
 1/2-1
 4897 ft.**

**EXXON RS 63670
 6523 SAN PEDRO
 SAN ANTONIO, TX 78216**

**LUST U003411839
 UST N/A**

**Relative:
 Higher**

LUST:

Facility ID: 0026082
 Facility Location: 6523 SAN PEDRO AVE
 Reported Date: 12/5/88
 Entered Date: 12/5/88
 RPR Coordinator: HLN
 Region: 13
 Region City ID: SAN ANTONIO
 LPST Id: 092327
 Responsible Party: EXXON CO USA
 RP Contact: RUBY SANCHEZ
 RP Telephone: 713/656-3478
 County Code: 015
 RP Address: PO BOX 2180
 HOUSTON, TX 77252 - 2180

**Actual:
 762 ft.**

Priority: GW IMPACTED, NO APPARENT THREATS OR IMPACTS TO RECEPTORS
 Status: FINAL CONCURRENCE ISSUED, CASE CLOSED

UST:

Facility ID:	0026082	Tank Installer:	Not reported
Tank ID:	2	Installation Date:	01/01/85
Tank Emptied:	No	Status Date:	06/01/01
Capacity:	10000	Unit ID:	00067162
Tank Material of Construction:	Fiberglass-Reinforced Plastic (FRP)		
Pipe Material of Construction:	Fiberglass-Reinforced Plastic (FRP)		
Other Materials of Construction:	Not reported		
Tank Status:	Removed from the Ground		
Tank Construction & Containment:	Single Wall		
Pipe Construction & Containment:	Double Wall		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Gasoline		
Compartment Other Substance:	Not reported		
Tank Release Detection Method:	Automatic Tank Gauge Test and Inventory Cntrl		
Tank Release Method Detection II:	Not reported		
Tank Release Method Detection III:	Not reported		
Other Tank Release Method Detection:	Tightness Testing		
Tank Release Detection Variance :	No Variance		
Pipe Release Detection Method:	Auto. Line Leak Detector(3.0gph for pressure piping)		
Other Pipe Release Detection Method :	Tightness Testing		
Pipe Release Detection Variance :	No Variance		
Spill and Overfill Protection:	Auto. Flow Restrictor Valve		
Spill and Overfill Protection II:	Tight-Fill Fitting		
Spill and Overfill Protection III:	Tight-Fill Fitting		
Tank Corrosion Protection:	None		
Pipe Corrosion Protection:	None		
Other Corrosion Protection:	Not reported		
Vapor Recovery Equipment Status:	Not reported		
Equipment Installed Date:	Not reported		
Equipment Installer:	Not reported		
Contractor Registration Number:	Not reported		

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

EXXON RS 63670 (Continued)

U003411839

Tank Registration Date:	05/08/86		
Installer License Number:	Not reported		
Operator Name:	Not reported		
Operator Telephone number:	Not reported		
Operator Address:			
Operator Address building:	Not reported		
Contact Operator Name:			
Contact Operator title:	Not reported		
Contact Operator Phone:	Not reported		
Self-Certification date:	Not reported		
Signature Name:	Not reported		
Signature Title Name:	Not reported		
Signature Type Text:	Not reported		
Certification Submitted Type:	Not reported		
Registration Self-Certification Flag:	Not reported		
Fees Self-Certification Flag:	Not reported		
Financial Assurance Self-Certification flag:	Not reported		
Technical standards Self-Certification flag:	Not reported		
UST Delivery Certificate Expiration Date:	Not reported		
Compartment letter:	Not reported		
Financial Responsibility Type:	Financial Test		
Corrective Action Met Flag:	1		
Third Party Met Flag:	1		
Financial Assurance Beginning Date:	12/31/92		
Piping Design & Ext. Containment 3 :	Not reported		
Piping Design & Ext. Containment 4 :	Not reported		
Type of Piping :	A		
Internal Tank Lining Date :	00/00/00		
Pipe Connectors and Valves 1 :	Not reported		
Pipe Connectors and Valves 2 :	Not reported		
Pipe Connectors and Valves 3 :	Not reported		
Other Tank Corrosion Protection Text:	Not reported		
Tank Corrosion Protection Variance :	No Variance		
Pipe Corrosion Protection iii3 :	Not reported		
Pipe Corrosion Protection Variance :	No Variance		
Stage 2 Vapor Recry Equipment Status :	Not reported		
Stage 1 Equipment Installed Date :	Not reported		
Tank Tested :	Not reported		
Compartment Capacity :	0000000		
Owner ID :	Not reported		
Owner Name :	EXXON MOBIL CORPORATION		
Owner Address :	12265 W BAYAUD AVE STE 300 LAKEWOOD, CO 80228		
Owner Contact Telephone :	303-986-8011		
Owner Contact Name:	ERIC MCPHEE		
Date Registration Form Received :	08/86/05		
Facility Type :	Retail		
Name of Facility Manager :	Not reported		
Title of Facility Manager :	M&C Specialist		
Facility Manager Phone :	210-220-3425		
Sign Name on Registration Form :	RN. ATHERTON		
Title of Signer of Registration Form :	ENG. SUPV.		
Date of Signature on Registration Form :	042686		
Facility in Ozone non-attainment area :	Not reported		
Facility ID:	0026082	Tank Installer:	Not reported
Tank ID:	1	Installation Date:	01/01/85

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

EXXON RS 63670 (Continued)

EDR ID Number
EPA ID Number

Database(s)

U003411839

Tank Emptied:	No	Status Date:	06/01/01
Capacity:	12000	Unit ID:	00067163
Tank Material of Construction:	Fiberglass-Reinforced Plastic (FRP)		
Pipe Material of Construction:	Fiberglass-Reinforced Plastic (FRP)		
Other Materials of Construction:	Not reported		
Tank Status:	Removed from the Ground		
Tank Construction & Containment:	Single Wall		
Pipe Construction & Containment:	Double Wall		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Gasoline		
Compartment Other Substance:	Not reported		
Tank Release Detection Method:	Automatic Tank Gauge Test and Inventory Cntrl		
Tank Release Method Detection II:	Not reported		
Tank Release Method Detection III:	Not reported		
Other Tank Release Method Detection:	Tightness Testing		
Tank Release Detection Variance :	No Variance		
Pipe Release Detection Method:	Auto. Line Leak Detector(3.0gph for pressure piping)		
Other Pipe Release Detection Method :	Tightness Testing		
Pipe Release Detection Variance :	No Variance		
Spill and Overfill Protection:	Auto. Flow Restrictor Valve		
Spill and Overfill Protection II:	Tight-Fill Fitting		
Spill and Overfill Protection III:	Tight-Fill Fitting		
Tank Corrosion Protection:	None		
Pipe Corrosion Protection:	None		
Other Corrosion Protection:	Not reported		
Vapor Recovery Equipment Status:	Not reported		
Equipment Installed Date:	Not reported		
Equipment Installer:	Not reported		
Contractor Registration Number:	Not reported		
Tank Registration Date:	05/08/86		
Installer License Number:	Not reported		
Operator Name:	Not reported		
Operator Telephone number:	Not reported		
Operator Address:			
Operator Address building:	Not reported		
Contact Operator Name:			
Contact Operator title:	Not reported		
Contact Operator Phone:	Not reported		
Self-Certification date:	Not reported		
Signature Name:	Not reported		
Signature Title Name:	Not reported		
Signature Type Text:	Not reported		
Certification Submitted Type:	Not reported		
Registration Self-Certification Flag:	Not reported		
Fees Self-Certification Flag:	Not reported		
Financial Assurance Self-Certification flag:	Not reported		
Technical standards Self-Certification flag:	Not reported		
UST Delivery Certificate Expiration Date:	Not reported		
Compartment letter:	Not reported		
Financial Responsibility Type:	Financial Test		
Corrective Action Met Flag:	1		
Third Party Met Flag:	1		
Financial Assurance Beginning Date:	12/31/92		
Piping Design & Ext. Containment 3 :	Not reported		
Piping Design & Ext. Containment 4 :	Not reported		
Type of Piping :	A		
Internal Tank Lining Date :	00/00/00		

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

EXXON RS 63670 (Continued)

U003411839

Pipe Connectors and Valves 1 :	Not reported		
Pipe Connectors and Valves 2 :	Not reported		
Pipe Connectors and Valves 3 :	Not reported		
Other Tank Corrosion Protection Text:	Not reported		
Tank Corrosion Protection Variance :	No Variance		
Pipe Corrosion Protection iii3 :	Not reported		
Pipe Corrosion Protection Variance :	No Variance		
Stage 2 Vapor Recry Equipment Status :	Not reported		
Stage 1 Equipment Installed Date :	Not reported		
Tank Tested :	Not reported		
Compartment Capacity :	0000000		
Owner ID :	Not reported		
Owner Name :	EXXON MOBIL CORPORATION		
Owner Address :	12265 W BAYAUD AVE STE 300		
	LAKEWOOD, CO 80228		
Owner Contact Telephone :	303-986-8011		
Owner Contact Name:	ERIC MCPHEE		
Date Registration Form Received :	08/86/05		
Facility Type :	Retail		
Name of Facility Manager :	Not reported		
Title of Facility Manager :	M&C Specialist		
Facility Manager Phone :	210-220-3425		
Sign Name on Registration Form :	RN. ATHERTON		
Title of Signer of Registration Form :	ENG. SUPV.		
Date of Signature on Registration Form :	042686		
Facility in Ozone non-attainment area :	Not reported		
Facility ID:	0026082	Tank Installer:	Not reported
Tank ID:	4	Installation Date:	01/01/85
Tank Emptied:	No	Status Date:	06/01/01
Capacity:	10000	Unit ID:	00067164
Tank Material of Construction:	Fiberglass-Reinforced Plastic (FRP)		
Pipe Material of Construction:	Fiberglass-Reinforced Plastic (FRP)		
Other Materials of Construction:	Not reported		
Tank Status:	Removed from the Ground		
Tank Construction & Containment:	Single Wall		
Pipe Construction & Containment:	Double Wall		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Gasoline		
Compartment Other Substance:	Not reported		
Tank Release Detection Method:	Automatic Tank Gauge Test and Inventory Cntrl		
Tank Release Method Detection II:	Not reported		
Tank Release Method Detection III:	Not reported		
Other Tank Release Method Detection:	Tightness Testing		
Tank Release Detection Variance :	No Variance		
Pipe Release Detection Method:	Auto. Line Leak Detector(3.0gph for pressure piping)		
Other Pipe Release Detection Method :	Tightness Testing		
Pipe Release Detection Variance :	No Variance		
Spill and Overfill Protection:	Auto. Flow Restrictor Valve		
Spill and Overfill Protection II:	Tight-Fill Fitting		
Spill and Overfill Protection III:	Tight-Fill Fitting		
Tank Corrosion Protection:	None		
Pipe Corrosion Protection:	None		
Other Corrosion Protection:	Not reported		
Vapor Recovery Equipment Status:	Not reported		
Equipment Installed Date:	Not reported		
Equipment Installer:	Not reported		

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

EXXON RS 63670 (Continued)

U003411839

Contractor Registration Number: Not reported
 Tank Registration Date: 05/08/86
 Installer License Number: Not reported
 Operator Name: Not reported
 Operator Telephone number: Not reported
 Operator Address:
 Operator Address building: Not reported
 Contact Operator Name:
 Contact Operator title: Not reported
 Contact Operator Phone: Not reported
 Self-Certification date: Not reported
 Signature Name: Not reported
 Signature Title Name: Not reported
 Signature Type Text: Not reported
 Certification Submitted Type: Not reported
 Registration Self-Certification Flag: Not reported
 Fees Self-Certification Flag: Not reported
 Financial Assurance Self-Certification flag: Not reported
 Technical standards Self-Certification flag: Not reported
 UST Delivery Certificate Expiration Date: Not reported
 Compartment letter: Not reported
 Financial Responsibility Type: Financial Test
 Corrective Action Met Flag: 1
 Third Party Met Flag: 1
 Financial Assurance Beginning Date: 12/31/92
 Piping Design & Ext. Containment 3 : Not reported
 Piping Design & Ext. Containment 4 : Not reported
 Type of Piping : A
 Internal Tank Lining Date : 00/00/00
 Pipe Connectors and Valves 1 : Not reported
 Pipe Connectors and Valves 2 : Not reported
 Pipe Connectors and Valves 3 : Not reported
 Other Tank Corrosion Protection Text: Not reported
 Tank Corrosion Protection Variance : No Variance
 Pipe Corrosion Protection iii3 : Not reported
 Pipe Corrosion Protection Variance : No Variance
 Stage 2 Vapor Recry Equipment Status : Not reported
 Stage 1 Equipment Installed Date : Not reported
 Tank Tested : Not reported
 Compartment Capacity : 0000000
 Owner ID : Not reported
 Owner Name : EXXON MOBIL CORPORATION
 Owner Address : 12265 W BAYAUD AVE STE 300
 LAKEWOOD, CO 80228
 Owner Contact Telephone : 303-986-8011
 Owner Contact Name: ERIC MCPHEE
 Date Registration Form Received : 08/86/05
 Facility Type : Retail
 Name of Facility Manager : Not reported
 Title of Facility Manager : M&C Specialist
 Facility Manager Phone : 210-220-3425
 Sign Name on Registration Form : RN. ATHERTON
 Title of Signer of Registration Form : ENG. SUPV.
 Date of Signature on Registration Form : 042686
 Facility in Ozone non-attainment area : Not reported

Facility ID: 0026082 Tank Installer: Not reported

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

MAP FINDINGS

EXXON RS 63670 (Continued)

EDR ID Number
 EPA ID Number

Database(s)

U003411839

Tank ID:	3	Installation Date:	01/01/85
Tank Emptied:	No	Status Date:	06/01/01
Capacity:	8000	Unit ID:	00067165
Tank Material of Construction:	Fiberglass-Reinforced Plastic (FRP)		
Pipe Material of Construction:	Fiberglass-Reinforced Plastic (FRP)		
Other Materials of Construction:	Not reported		
Tank Status:	Removed from the Ground		
Tank Construction & Containment:	Single Wall		
Pipe Construction & Containment:	Double Wall		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Gasoline		
Compartment Other Substance:	Not reported		
Tank Release Detection Method:	Automatic Tank Gauge Test and Inventory Cntrl		
Tank Release Method Detection II:	Not reported		
Tank Release Method Detection III:	Not reported		
Other Tank Release Method Detection:	Tightness Testing		
Tank Release Detection Variance :	No Variance		
Pipe Release Detection Method:	Auto. Line Leak Detector(3.0gph for pressure piping)		
Other Pipe Release Detection Method :	Tightness Testing		
Pipe Release Detection Variance :	No Variance		
Spill and Overfill Protection:	Auto. Flow Restrictor Valve		
Spill and Overfill Protection II:	Tight-Fill Fitting		
Spill and Overfill Protection III:	Tight-Fill Fitting		
Tank Corrosion Protection:	None		
Pipe Corrosion Protection:	None		
Other Corrosion Protection:	Not reported		
Vapor Recovery Equipment Status:	Not reported		
Equipment Installed Date:	Not reported		
Equipment Installer:	Not reported		
Contractor Registration Number:	Not reported		
Tank Registration Date:	05/08/86		
Installer License Number:	Not reported		
Operator Name:	Not reported		
Operator Telephone number:	Not reported		
Operator Address:	Not reported		
Operator Address building:	Not reported		
Contact Operator Name:	Not reported		
Contact Operator title:	Not reported		
Contact Operator Phone:	Not reported		
Self-Certification date:	Not reported		
Signature Name:	Not reported		
Signature Title Name:	Not reported		
Signature Type Text:	Not reported		
Certification Submitted Type:	Not reported		
Registration Self-Certification Flag:	Not reported		
Fees Self-Certification Flag:	Not reported		
Financial Assurance Self-Certification flag:	Not reported		
Technical standards Self-Certification flag:	Not reported		
UST Delivery Certificate Expiration Date:	Not reported		
Compartment letter:	Not reported		
Financial Responsibility Type:	Financial Test		
Corrective Action Met Flag:	1		
Third Party Met Flag:	1		
Financial Assurance Beginning Date:	12/31/92		
Piping Design & Ext. Containment 3 :	Not reported		
Piping Design & Ext. Containment 4 :	Not reported		
Type of Piping :	A		

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

MAP FINDINGS

EXXON RS 63670 (Continued)

EDR ID Number
 EPA ID Number

Database(s)

U003411839

Internal Tank Lining Date : 00/00/00
 Pipe Connectors and Valves 1 : Not reported
 Pipe Connectors and Valves 2 : Not reported
 Pipe Connectors and Valves 3 : Not reported
 Other Tank Corrosion Protection Text: Not reported
 Tank Corrosion Protection Variance : No Variance
 Pipe Corrosion Protection iii3 : Not reported
 Pipe Corrosion Protection Variance : No Variance
 Stage 2 Vapor Recry Equipment Status : Not reported
 Stage 1 Equipment Installed Date : Not reported
 Tank Tested : Not reported
 Compartment Capacity : 0000000
 Owner ID : Not reported
 Owner Name : EXXON MOBIL CORPORATION
 Owner Address : 12265 W BAYAUD AVE STE 300
 LAKEWOOD, CO 80228
 Owner Contact Telephone : 303-986-8011
 Owner Contact Name: ERIC MCPHEE
 Date Registration Form Received : 08/86/05
 Facility Type : Retail
 Name of Facility Manager : Not reported
 Title of Facility Manager : M&C Specialist
 Facility Manager Phone : 210-220-3425
 Sign Name on Registration Form : RN. ATHERTON
 Title of Signer of Registration Form : ENG. SUPV.
 Date of Signature on Registration Form : 042686
 Facility in Ozone non-attainment area : Not reported

24
West
1/2-1
4953 ft.

BANNER SIGNS & BARRICADES INC
70 HABY DR
SAN ANTONIO, TX 78212

LUST S104957120
N/A

Relative:
Higher

LUST:

Actual:
730 ft.

Facility ID: Not reported
 Facility Location: 1422 S HACKBERRY 210 349 1884
 Reported Date: 12/16/99
 Entered Date: 4/12/0
 RPR Coordinator: MDS
 Region: 13
 Region City ID: SAN ANTONIO
 LPST Id: 114938
 Responsible Party: BANNER SIGNS & BARRICADES INC
 RP Contact: CHARLES BROWN
 RP Telephone: 210/648-0173
 County Code: 015
 RP Address: 350 GLENOAK DR
 SAN ANTONIO, TX 78220 - 3506
 Priority: ASSESSMENT INCOMPLETE, NO APPARENT THREATS OR IMPACTS TO RECEPTORS
 Status: FINAL CONCURRENCE ISSUED, CASE CLOSED

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

25
NW
1/2-1
5233 ft.

E-Z MART 226
6614 SAN PEDRO BLVD
SAN ANTONIO, TX 78216

LUST **U003411439**
UST **N/A**

Relative:
Higher

LUST:

Facility ID: 0010256
 Facility Location: 6614 SAN PEDRO
 Reported Date: 1/24/96
 Entered Date: 3/20/96
 RPR Coordinator: HJM
 Region: 13
 Region City ID: SAN ANTONIO
 LPST Id: 110584
 Responsible Party: E Z MART STORES INC
 RP Contact: BOB HUBBARD
 RP Telephone: 903/832-6502
 County Code: 015
 RP Address: 602 W FALVEY
 TEXARKANA, TX 75504 - 1426
 Priority: NO GW IMPACT, NO APPARENT THREATS OR IMPACTS TO RECEPTORS
 Status: FINAL CONCURRENCE ISSUED, CASE CLOSED

Actual:
770 ft.

UST:

Facility ID:	0010256	Tank Installer:	Not reported
Tank ID:	2	Installation Date:	01/01/84
Tank Emptied:	No	Status Date:	Not reported
Capacity:	12044	Unit ID:	00027109
Tank Material of Construction:	Steel		
Pipe Material of Construction:	Fiberglass-Reinforced Plastic (FRP)		
Other Materials of Construction:	Not reported		
Tank Status:	In Use		
Tank Construction & Containment:	Single Wall		
Pipe Construction & Containment:	Single Wall		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Gasoline		
Compartment Other Substance:	Not reported		
Tank Release Detection Method:	Groundwater Monitoring		
Tank Release Method Detection II:	SIR (Stat. Inventory Reconciliation) and Inventory Cntr		
Tank Release Method Detection III:	Vapor Monitoring		
Other Tank Release Method Detection:	Not reported		
Tank Release Detection Variance :	No Variance		
Pipe Release Detection Method:	Groundwater Monitoring		
Pipe Release Detection Method II:	Auto. Line Leak Detector(3.0gph for pressure piping)		
Pipe Release Detection Method III:	SIR (Stat. Inventory Reconciliation) and Inventory Cntr		
Other Pipe Release Detection Method :	Vapor Monitoring		
Pipe Release Detection Variance :	No Variance		
Spill and Overfill Protection:	Automatic Delivery Shut-off Valve		
Spill and Overfill Protection II:	Tight-Fill Fitting		
Spill and Overfill Protection III:	Tight-Fill Fitting		
Tank Corrosion Protection:	Composite Tank (steel w/FRP laminate)		
Pipe Corrosion Protection:	9		
Pipe Corrosion Protection II:	None		
Other Corrosion Protection:	Not reported		
Vapor Recovery Equipment Status:	Stage 2 Vapor Recovery Equipment Installed		
Equipment Installed Date:	Not reported		
Equipment Installer:	Not reported		
Contractor Registration Number:	Not reported		
Tank Registration Date:	05/08/86		
Installer License Number:	Not reported		

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

E-Z MART 226 (Continued)

U003411439

Operator Name: E-Z MART STORES INC
Operator Telephone number: Not reported
Operator Address: TEXARKANA, TX 75504
Operator Address building: PO BOX 1426
Contact Operator Name: DAVID MCKAMIE
Contact Operator title: ENVIR DIR
Contact Operator Phone: 903-832-6502
Self-Certification date: 080102
Signature Name: DAVID MCKAMIE
Signature Title Name: Not reported
Signature Type Text: Legally-Authorized Rep of Owner
Certification Submitted Type: A
Registration Self-Certification Flag: 1
Fees Self-Certification Flag: Not reported
Financial Assurance Self-Certification flag: 1
Technical standards Self-Certification flag: 1
UST Delivery Certificate Expiration Date: 20/03/09
Compartment letter: A
Financial Responsibility Type: Insurance or Risk Retention Group
Corrective Action Met Flag: 1
Third Party Met Flag: 1
Financial Assurance Beginning Date: 09/26/92
Piping Design & Ext. Containment 3 : Not reported
Piping Design & Ext. Containment 4 : Not reported
Type of Piping : A
Internal Tank Lining Date : 00/00/00
Pipe Connectors and Valves 1 : 3
Pipe Connectors and Valves 2 : 1
Pipe Connectors and Valves 3 : Not reported
Other Tank Corrosion Protection Text: Not reported
Tank Corrosion Protection Variance : No Variance
Pipe Corrosion Protection iii3 : 3
Pipe Corrosion Protection Variance : No Variance
Stage 2 Vapor Recry Equipment Status : Not reported
Stage 1 Equipment Installed Date : Not reported
Tank Tested : Not reported
Compartment Capacity : 0000000
Owner ID : 22479
Owner Name : E-Z MART STORES INC
Owner Address : 602 W FALVEY
TEXARKANA, TX 75504
Owner Contact Telephone : 903-832-6502
Owner Contact Name: David McKamie
Date Registration Form Received : 08/86/05
Facility Type : Retail
Name of Facility Manager : Mckamie
Title of Facility Manager : Not reported
Facility Manager Phone : 210-822-3202
Sign Name on Registration Form : THOMAS E CARTER
Title of Signer of Registration Form : GAS OPER MGR
Date of Signature on Registration Form : 041486
Facility in Ozone non-attainment area : Not reported
Facility ID: 0010256
Tank ID: 1
Tank Emptied: No
Tank Installer: Not reported
Installation Date: 01/01/84
Status Date: Not reported

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation

MAP FINDINGS

E-Z MART 226 (Continued)

EDR ID Number
 EPA ID Number

Database(s)

U003411439

Capacity:	12044	Unit ID:	00027110
Tank Material of Construction:	Steel		
Pipe Material of Construction:	Fiberglass-Reinforced Plastic (FRP)		
Other Materials of Construction:	Not reported		
Tank Status:	In Use		
Tank Construction & Containment:	Single Wall		
Pipe Construction & Containment:	Single Wall		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Gasoline		
Compartment Other Substance:	Not reported		
Tank Release Detection Method:	Groundwater Monitoring		
Tank Release Method Detection II:	SIR (Stat. Inventory Reconciliation) and Inventory Cntr		
Tank Release Method Detection III:	Vapor Monitoring		
Other Tank Release Method Detection:	Not reported		
Tank Release Detection Variance :	No Variance		
Pipe Release Detection Method:	Groundwater Monitoring		
Pipe Release Detection Method II:	Auto. Line Leak Detector(3.0gph for pressure piping)		
Pipe Release Detection Method III:	SIR (Stat. Inventory Reconciliation) and Inventory Cntr		
Other Pipe Release Detection Method :	Vapor Monitoring		
Pipe Release Detection Variance :	No Variance		
Spill and Overfill Protection:	Automatic Delivery Shut-off Valve		
Spill and Overfill Protection II:	Tight-Fill Fitting		
Spill and Overfill Protection III:	Tight-Fill Fitting		
Tank Corrosion Protection:	Composite Tank (steel w/FRP laminate)		
Pipe Corrosion Protection:	None		
Pipe Corrosion Protection II:	Composite Tank (steel w/FRP laminate)		
Other Corrosion Protection:	Not reported		
Vapor Recovery Equipment Status:	Stage 2 Vapor Recovery Equipment Installed		
Equipment Installed Date:	Not reported		
Equipment Installer:	Not reported		
Contractor Registration Number:	Not reported		
Tank Registration Date:	05/08/86		
Installer License Number:	Not reported		
Operator Name:	E-Z MART STORES INC		
Operator Telephone number:	Not reported		
Operator Address:	TEXARKANA, TX 75504		
Operator Address building:	PO BOX 1426		
Contact Operator Name:	DAVID MCKAMIE		
Contact Operator title:	ENVIR DIR		
Contact Operator Phone:	903-832-6502		
Self-Certification date:	080102		
Signature Name:	DAVID MCKAMIE		
Signature Title Name:	Not reported		
Signature Type Text:	Legally-Authorized Rep of Owner		
Certification Submitted Type:	A		
Registration Self-Certification Flag:	1		
Fees Self-Certification Flag:	Not reported		
Financial Assurance Self-Certification flag:	1		
Technical standards Self-Certification flag:	1		
UST Delivery Certificate Expiration Date:	20/03/09		
Compartment letter:	A		
Financial Responsibility Type:	Insurance or Risk Retention Group		
Corrective Action Met Flag:	1		
Third Party Met Flag:	1		
Financial Assurance Beginning Date:	09/26/92		
Piping Design & Ext. Containment 3 :	Not reported		

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

E-Z MART 226 (Continued)

U003411439

Piping Design & Ext. Containment 4 :	Not reported		
Type of Piping :	A		
Internal Tank Lining Date :	00/00/00		
Pipe Connectors and Valves 1 :	3		
Pipe Connectors and Valves 2 :	1		
Pipe Connectors and Valves 3 :	Not reported		
Other Tank Corrosion Protection Text:	Not reported		
Tank Corrosion Protection Variance :	No Variance		
Pipe Corrosion Protection iii3 :	Not reported		
Pipe Corrosion Protection Variance :	No Variance		
Stage 2 Vapor Recry Equipment Status :	Not reported		
Stage 1 Equipment Installed Date :	Not reported		
Tank Tested :	Not reported		
Compartment Capacity :	0000000		
Owner ID :	22479		
Owner Name :	E-Z MART STORES INC		
Owner Address :	602 W FALVEY TEXARKANA, TX 75504		
Owner Contact Telephone :	903-832-6502		
Owner Contact Name:	David McKamie		
Date Registration Form Received :	08/86/05		
Facility Type :	Retail		
Name of Facility Manager :	Mckamie		
Title of Facility Manager :	Not reported		
Facility Manager Phone :	210-822-3202		
Sign Name on Registration Form :	THOMAS E CARTER		
Title of Signer of Registration Form :	GAS OPER MGR		
Date of Signature on Registration Form :	041486		
Facility in Ozone non-attainment area :	Not reported		
Facility ID:	0010256	Tank Installer:	Not reported
Tank ID:	4	Installation Date:	01/01/84
Tank Emptied:	No	Status Date:	Not reported
Capacity:	8022	Unit ID:	00027111
Tank Material of Construction:	Steel		
Pipe Material of Construction:	Fiberglass-Reinforced Plastic (FRP)		
Other Materials of Construction:	Not reported		
Tank Status:	In Use		
Tank Construction & Containment:	Single Wall		
Pipe Construction & Containment:	Single Wall		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Gasoline		
Compartment Other Substance:	Not reported		
Tank Release Detection Method:	Groundwater Monitoring		
Tank Release Method Detection II:	SIR (Stat. Inventory Reconciliation) and Inventory Cntr		
Tank Release Method Detection III:	Vapor Monitoring		
Other Tank Release Method Detection:	Not reported		
Tank Release Detection Variance :	No Variance		
Pipe Release Detection Method:	Groundwater Monitoring		
Pipe Release Detection Method II:	Auto. Line Leak Detector(3.0gph for pressure piping)		
Pipe Release Detection Method III:	SIR (Stat. Inventory Reconciliation) and Inventory Cntr		
Other Pipe Release Detection Method :	Vapor Monitoring		
Pipe Release Detection Variance :	No Variance		
Spill and Overfill Protection:	Automatic Delivery Shut-off Valve		
Spill and Overfill Protection II:	Tight-Fill Fitting		
Spill and Overfill Protection III:	Tight-Fill Fitting		
Tank Corrosion Protection:	Composite Tank (steel w/FRP laminate)		

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

E-Z MART 226 (Continued)

U003411439

Pipe Corrosion Protection: 9
 Pipe Corrosion Protection II: None
 Other Corrosion Protection: Not reported
 Vapor Recovery Equipment Status: Stage 2 Vapor Recovery Equipment Installed
 Equipment Installed Date: Not reported
 Equipment Installer: Not reported
 Contractor Registration Number: Not reported
 Tank Registration Date: 05/08/86
 Installer License Number: Not reported
 Operator Name: E-Z MART STORES INC
 Operator Telephone number: Not reported
 Operator Address:
 TEXARKANA, TX 75504
 Operator Address building: PO BOX 1426
 Contact Operator Name: DAVID MCKAMIE
 Contact Operator title: ENVIR DIR
 Contact Operator Phone: 903-832-6502
 Self-Certification date: 080102
 Signature Name: DAVID MCKAMIE
 Signature Title Name: Not reported
 Signature Type Text: Legally-Authorized Rep of Owner
 Certification Submitted Type: A
 Registration Self-Certification Flag: 1
 Fees Self-Certification Flag: Not reported
 Financial Assurance Self-Certification flag: 1
 Technical standards Self-Certification flag: 1
 UST Delivery Certificate Expiration Date: 20/03/09
 Compartment letter: A
 Financial Responsibility Type: Insurance or Risk Retention Group
 Corrective Action Met Flag: 1
 Third Party Met Flag: 1
 Financial Assurance Beginning Date: 09/26/92
 Piping Design & Ext. Containment 3 : Not reported
 Piping Design & Ext. Containment 4 : Not reported
 Type of Piping : B
 Internal Tank Lining Date : 00/00/00
 Pipe Connectors and Valves 1 : 3
 Pipe Connectors and Valves 2 : 1
 Pipe Connectors and Valves 3 : Not reported
 Other Tank Corrosion Protection Text: Not reported
 Tank Corrosion Protection Variance : No Variance
 Pipe Corrosion Protection iii3 : 3
 Pipe Corrosion Protection Variance : No Variance
 Stage 2 Vapor Recry Equipment Status : Not reported
 Stage 1 Equipment Installed Date : Not reported
 Tank Tested : Not reported
 Compartment Capacity : 0000000
 Owner ID : 22479
 Owner Name : E-Z MART STORES INC
 Owner Address : 602 W FALVEY
 TEXARKANA, TX 75504
 Owner Contact Telephone : 903-832-6502
 Owner Contact Name: David McKamie
 Date Registration Form Received : 08/86/05
 Facility Type : Retail
 Name of Facility Manager : Mckamie
 Title of Facility Manager : Not reported

Map ID
 Direction
 Distance
 Distance (ft.)
 Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
 EPA ID Number

E-Z MART 226 (Continued)

U003411439

Facility Manager Phone :	210-822-3202		
Sign Name on Registration Form :	THOMAS E CARTER		
Title of Signer of Registration Form :	GAS OPER MGR		
Date of Signature on Registration Form :	041486		
Facility in Ozone non-attainment area :	Not reported		
Facility ID:	0010256	Tank Installer:	Not reported
Tank ID:	3	Installation Date:	01/01/84
Tank Emptied:	No	Status Date:	Not reported
Capacity:	12044	Unit ID:	00027112
Tank Material of Construction:	Steel		
Pipe Material of Construction:	Fiberglass-Reinforced Plastic (FRP)		
Other Materials of Construction:	Not reported		
Tank Status:	In Use		
Tank Construction & Containment:	Single Wall		
Pipe Construction & Containment:	Single Wall		
Other Construction & Containment:	Not reported		
Compartment Substance Stored:	Gasoline		
Compartment Other Substance:	Not reported		
Tank Release Detection Method:	Groundwater Monitoring		
Tank Release Method Detection II:	SIR (Stat. Inventory Reconciliation) and Inventory Cntr		
Tank Release Method Detection III:	Vapor Monitoring		
Other Tank Release Method Detection:	Not reported		
Tank Release Detection Variance :	No Variance		
Pipe Release Detection Method:	Groundwater Monitoring		
Pipe Release Detection Method II:	Auto. Line Leak Detector(3.0gph for pressure piping)		
Pipe Release Detection Method III:	SIR (Stat. Inventory Reconciliation) and Inventory Cntr		
Other Pipe Release Detection Method :	Vapor Monitoring		
Pipe Release Detection Variance :	No Variance		
Spill and Overfill Protection:	Automatic Delivery Shut-off Valve		
Spill and Overfill Protection II:	Tight-Fill Fitting		
Spill and Overfill Protection III:	Tight-Fill Fitting		
Tank Corrosion Protection:	Composite Tank (steel w/FRP laminate)		
Pipe Corrosion Protection:	9		
Pipe Corrosion Protection II:	None		
Other Corrosion Protection:	Not reported		
Vapor Recovery Equipment Status:	Stage 2 Vapor Recovery Equipment Installed		
Equipment Installed Date:	Not reported		
Equipment Installer:	Not reported		
Contractor Registration Number:	Not reported		
Tank Registration Date:	05/08/86		
Installer License Number:	Not reported		
Operator Name:	E-Z MART STORES INC		
Operator Telephone number:	Not reported		
Operator Address:	TEXARKANA, TX 75504		
Operator Address building:	PO BOX 1426		
Contact Operator Name:	DAVID MCKAMIE		
Contact Operator title:	ENVIR DIR		
Contact Operator Phone:	903-832-6502		
Self-Certification date:	080102		
Signature Name:	DAVID MCKAMIE		
Signature Title Name:	Not reported		
Signature Type Text:	Legally-Authorized Rep of Owner		
Certification Submitted Type:	A		
Registration Self-Certification Flag:	1		
Fees Self-Certification Flag:	Not reported		

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

E-Z MART 226 (Continued)

U003411439

Financial Assurance Self-Certification flag: 1
Technical standards Self-Certification flag: 1
UST Delivery Certificate Expiration Date: 20/03/09
Compartment letter: A
Financial Responsibility Type: Insurance or Risk Retention Group
Corrective Action Met Flag: 1
Third Party Met Flag: 1
Financial Assurance Beginning Date: 09/26/92
Piping Design & Ext. Containment 3 : Not reported
Piping Design & Ext. Containment 4 : Not reported
Type of Piping : A
Internal Tank Lining Date : 00/00/00
Pipe Connectors and Valves 1 : 3
Pipe Connectors and Valves 2 : 1
Pipe Connectors and Valves 3 : Not reported
Other Tank Corrosion Protection Text: Not reported
Tank Corrosion Protection Variance : No Variance
Pipe Corrosion Protection iii3 : 3
Pipe Corrosion Protection Variance : No Variance
Stage 2 Vapor Recry Equipment Status : Not reported
Stage 1 Equipment Installed Date : Not reported
Tank Tested : Not reported
Compartment Capacity : 0000000
Owner ID : 22479
Owner Name : E-Z MART STORES INC
Owner Address : 602 W FALVEY
TEXARKANA, TX 75504
Owner Contact Telephone : 903-832-6502
Owner Contact Name: David McKamie
Date Registration Form Received : 08/86/05
Facility Type : Retail
Name of Facility Manager : Mckamie
Title of Facility Manager : Not reported
Facility Manager Phone : 210-822-3202
Sign Name on Registration Form : THOMAS E CARTER
Title of Signer of Registration Form : GAS OPER MGR
Date of Signature on Registration Form : 041486
Facility in Ozone non-attainment area : Not reported

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
SAN ANTONIO	S105490998	DATAPOINT CORPORATION	12615 US 281 NORTH	78216	Ind. Haz Waste
SAN ANTONIO	1006334419	SPECPRO, INC.	10500 HWY 281	78216	MLTS
SAN ANTONIO	S105786260	CHEVRON #108562	11055 IH 35 N / WEIDNER SAN		Ind. Haz Waste
SAN ANTONIO	S105786261	CHEVRON #108562	11055 IH 35 N / WEIDNER SAN		Ind. Haz Waste
SAN ANTONIO	S105785491	BECK CONCRETE	FM 78 SAN ANTONIO		Ind. Haz Waste
SAN ANTONIO	S105785492	BECK CONCRETE	FM 78 SAN ANTONIO		Ind. Haz Waste
SAN ANTONIO	S105785493	BECK CONCRETE	FM 78 SAN ANTONIO		Ind. Haz Waste
SAN ANTONIO	S105785489	BECK CONCRETE	FM 78 SAN ANTONIO		Ind. Haz Waste
SAN ANTONIO	S105785490	BECK CONCRETE	FM 78 SAN ANTONIO		Ind. Haz Waste
SAN ANTONIO	S102741297	ADVANCED TOBACCO PRODUCTS INC.	ROUTE 9		Ind. Haz Waste
SAN ANTONIO	S105786056	EXXON CO. USA 63732	11702 W. AVE. SAN ANTONIO TX 7		Ind. Haz Waste
SAN ANTONIO	S105786057	EXXON CO. USA 63732	11702 W. AVE. SAN ANTONIO TX 7		Ind. Haz Waste
SAN ANTONIO	1004783589	COMET 1 HR CLEANERS	999 E BASSE RD	78209	RCRIS-SQG, FINDS
SAN ANTONIO	S105807076	LINCOLN HEIGHTS SHOPPING CENTER/CO	999 EAST BASSE ROAD	78209	TX VCP
SAN ANTONIO	S103168773	ALAMO CEMENT COMPANY/MATERIALS YAR	BASSE ROAD/JONES MALTSBERGER/H		TX VCP
SAN ANTONIO	S105784702	BROADWAY DODGE DBA	1130 BROADWAY SAN ANTONIO TX 7		Ind. Haz Waste
SAN ANTONIO	S105784703	BROADWAY DODGE DBA	1130 BROADWAY SAN ANTONIO TX 7		Ind. Haz Waste
SAN ANTONIO	S105784704	BROADWAY DODGE DBA	1130 BROADWAY SAN ANTONIO TX 7		Ind. Haz Waste
SAN ANTONIO	S105784700	BROADWAY DODGE (DBA)	1130 BROADWAY SAN ANTONIO TX 7		Ind. Haz Waste
SAN ANTONIO	S105784701	BROADWAY DODGE (DBA)	1130 BROADWAY SAN ANTONIO TX 7		Ind. Haz Waste
SAN ANTONIO	S105785967	AWARDS UNLIMITED	2210 BROADWAY SAN ANTONIO TX 7		Ind. Haz Waste
SAN ANTONIO	S105785968	AWARDS UNLIMITED	2210 BROADWAY SAN ANTONIO TX 7		Ind. Haz Waste
SAN ANTONIO	S105785969	AWARDS UNLIMITED	2210 BROADWAY SAN ANTONIO TX 7		Ind. Haz Waste
SAN ANTONIO	S105785970	AWARDS UNLIMITED	2210 BROADWAY SAN ANTONIO TX 7		Ind. Haz Waste
SAN ANTONIO	S105785971	AWARDS UNLIMITED	2210 BROADWAY SAN ANTONIO TX 7		Ind. Haz Waste
SAN ANTONIO	S105783637	LLOYD BALL EXXON	4200 BROADWAY,SAN ANTONIO		Ind. Haz Waste
SAN ANTONIO	S105783638	LLOYD BALL EXXON	4200 BROADWAY,SAN ANTONIO		Ind. Haz Waste
SAN ANTONIO	S105476759	HENDY ROSE GARAGE2	8914 BROADWAY,SAN ANTONIO		Ind. Haz Waste
SAN ANTONIO	S102748651	HENDY ROSE GARAGE#2	8914 BROADWAY,SAN ANTONIO		Ind. Haz Waste
SAN ANTONIO	S105783226	ARMY & A F EXCHANGE SERVICE	BUILDING 1070 RANDOLF AFB, SAN		Ind. Haz Waste
SAN ANTONIO	S105783227	ARMY & A F EXCHANGE SERVICE	BUILDING 1070 RANDOLF AFB, SAN		Ind. Haz Waste
SAN ANTONIO	S105783228	ARMY & A F EXCHANGE SERVICE	BUILDING 1070 RANDOLF AFB, SAN		Ind. Haz Waste
SAN ANTONIO	S105783224	ARMY & A/F EXCHANGE SERVICE	BUILDING 1070 RANDOLF AFB, SAN		Ind. Haz Waste
SAN ANTONIO	S105783225	ARMY & A/F EXCHANGE SERVICE	BUILDING 1070 RANDOLF AFB, SAN		Ind. Haz Waste
SAN ANTONIO	S105783558	CONTRACTORS EQUIPMENT REPAIR	5126 CASA ORO,SAN ANTONIO		Ind. Haz Waste
SAN ANTONIO	S105783559	CONTRACTORS EQUIPMENT REPAIR	5126 CASA ORO,SAN ANTONIO		Ind. Haz Waste
SAN ANTONIO	S103169079	MKT - SLOAN RAILYARD	WEST CEVALLES STREET		TX VCP
SAN ANTONIO	S105122483	UNIT 1	SE CRNR OF BITTERS / WEST AV	78216	AIRS
SAN ANTONIO	984478991	DRUMS ARE IN A DRY CREEK BED	DRUMS ARE IN A DRY CREEK BED		ERNS
SAN ANTONIO	1004787512	WAL MART STORE NO 2404	8500 JONES MALTSBURGER	78216	RCRIS-SQG, FINDS
SAN ANTONIO	S104956598	NORTHEAST POLICE STATION	10330 JONES MATTSBERGER	78216	LUST
SAN ANTONIO	S105782342	ALAMO PARK, INC.	JONES MALTZBERGER / HIGHWAY		Ind. Haz Waste
SAN ANTONIO	S105782343	ALAMO PARK, INC.	JONES MALTZBERGER / HIGHWAY		Ind. Haz Waste

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
SAN ANTONIO	S105783254	COOPER EQUIPMENT CO	JUDSON RD / RT.1604,SAN ANTO		Ind. Haz Waste
SAN ANTONIO	S105783255	COOPER EQUIPMENT CO	JUDSON RD / RT.1604,SAN ANTO		Ind. Haz Waste
SAN ANTONIO	S105783256	COOPER EQUIPMENT CO	JUDSON RD / RT.1604,SAN ANTO		Ind. Haz Waste
SAN ANTONIO	S105783252	COOPER EQUIPMENT CO.	JUDSON RD / RT.1604,SAN ANTO		Ind. Haz Waste
SAN ANTONIO	S105783253	COOPER EQUIPMENT CO.	JUDSON RD / RT.1604,SAN ANTO		Ind. Haz Waste
SAN ANTONIO	S105243622		5229 KBER SQUARE, SAN ANTONIO		SWF/LF
SAN ANTONIO	S105782982	LACKLAND AIR FORCE BASE TRAINING AN	LACKLAND AFB, SAN ANTONIO, TX		Ind. Haz Waste
SAN ANTONIO	S105243482		4542 S.E. LOOP 410 (IH 410)		SWF/LF, Ind. Haz Waste
SAN ANTONIO	S105243580		4542 S LOOP 410 (IH 410)		SWF/LF
SAN ANTONIO	S105783349	NORTH IND SCHOOL DISTRICT	7124 MAINLAND DRIVE, SAN ANTON		Ind. Haz Waste
SAN ANTONIO	S105783350	NORTH IND SCHOOL DISTRICT	7124 MAINLAND DRIVE, SAN ANTON		Ind. Haz Waste
SAN ANTONIO	S105783351	NORTH IND SCHOOL DISTRICT	7124 MAINLAND DRIVE, SAN ANTON		Ind. Haz Waste
SAN ANTONIO	S105783347	NORTH IND. SCHOOL DISTRICT	7124 MAINLAND DRIVE, SAN ANTON		Ind. Haz Waste
SAN ANTONIO	S105783348	NORTH IND. SCHOOL DISTRICT	7124 MAINLAND DRIVE, SAN ANTON		Ind. Haz Waste
SAN ANTONIO	S105162025		MARBACH OAKS		SWF/LF
SAN ANTONIO	S105784039	VEG PAK INC.	501 MERIDA,SAN ANTONIO		Ind. Haz Waste
SAN ANTONIO	S105784040	VEG PAK INC.	501 MERIDA,SAN ANTONIO		Ind. Haz Waste
SAN ANTONIO	S105784715	VETERANS ADMIN. HOSP. SAN	7400 MERTON MINTER, NORTH SAN		Ind. Haz Waste
SAN ANTONIO	S105784716	VETERANS ADMIN. HOSP. SAN	7400 MERTON MINTER, NORTH SAN		Ind. Haz Waste
SAN ANTONIO	S105749766		7400 MERTON MINTOR BLVD.,2.0 M		SWF/LF
SAN ANTONIO	S105243828		MISSION TERRACE OFFICE COMPLEX		SWF/LF
SAN ANTONIO	S105783609	J & S AUTO REPAIR	245 MORRISON SAN ANTONIO		Ind. Haz Waste
SAN ANTONIO	S105783607	J & S AUTO REPAIR	245 MORRISON SAN ANTONIO		Ind. Haz Waste
SAN ANTONIO	S105783608	J & S AUTO REPAIR	245 MORRISON SAN ANTONIO		Ind. Haz Waste
SAN ANTONIO	S105786065	GARLAND BOGGESS	6110 N. PAN AM; SAN ANTONIO, T		Ind. Haz Waste
SAN ANTONIO	S105786066	GARLAND BOGGESS	6110 N. PAN AM; SAN ANTONIO, T		Ind. Haz Waste
SAN ANTONIO	S105786067	GARLAND BOGGESS	6110 N. PAN AM; SAN ANTONIO, T		Ind. Haz Waste
SAN ANTONIO	S105786068	GARLAND BOGGESS	6110 N. PAN AM; SAN ANTONIO, T		Ind. Haz Waste
SAN ANTONIO	S105786069	GARLAND BOGGESS	6110 N. PAN AM; SAN ANTONIO, T		Ind. Haz Waste
SAN ANTONIO	S103605623	OLMOS EQUIPMENT	440 PINN (FRONT OFFICE) ROAD		Ind. Haz Waste
SAN ANTONIO	S103605002	OLMOS ENVIRONMENTAL SERVICES	440 PINN (BACK OFFICE) ROAD		Ind. Haz Waste
SAN ANTONIO	S105783592	HARMONY HILLS AUTO SVC	110 E. RAPSODY,SAN ANTONIO		Ind. Haz Waste
SAN ANTONIO	S105783593	HARMONY HILLS AUTO SVC	110 E. RAPSODY,SAN ANTONIO		Ind. Haz Waste
SAN ANTONIO	S105783594	HARMONY HILLS AUTO SVC	110 E. RAPSODY,SAN ANTONIO		Ind. Haz Waste
SAN ANTONIO	S105783590	HARMONY HILLS AUTO SVC	110 E. RAPSODY,SAN ANTONIO		Ind. Haz Waste
SAN ANTONIO	S105783591	HARMONY HILLS AUTO SVC	110 E. RAPSODY,SAN ANTONIO		Ind. Haz Waste
SAN ANTONIO	S105784009	BURRIS REPAIR	5524 ROGERS RD,SAN ANTONIO		Ind. Haz Waste
SAN ANTONIO	S105784010	BURRIS REPAIR	5524 ROGERS RD,SAN ANTONIO		Ind. Haz Waste
SAN ANTONIO	S105477509	CHEVRON 108574	10034 SAN PEDRO / SAHARA	78216	Ind. Haz Waste
SAN ANTONIO	S105477459	EXXON CO USA 63280	802 SAN PEDRO	78212	Ind. Haz Waste
SAN ANTONIO	S105778832	U.S. AIR FORCE	SAN ANTONIO, TX		Ind. Haz Waste
SAN ANTONIO	S105778833	LACKLAND AIR FORCE BASE - TRANSFER	SAN ANTONIO TX		Ind. Haz Waste
SAN ANTONIO	S105778834	LACKLAND AIR FORCE BASE - TRANSFER	SAN ANTONIO TX		Ind. Haz Waste
SAN ANTONIO	S105778835	LACKLAND AIR FORCE BASE - TRANSFER	SAN ANTONIO TX		Ind. Haz Waste
SAN ANTONIO	S105780516	ROSS, A.C. & SON PAPER CO.,INC	SAN ANTONIO, TX		Ind. Haz Waste
SAN ANTONIO	S105780517	ROSS, A.C. & SON PAPER CO.,INC	SAN ANTONIO, TX		Ind. Haz Waste
SAN ANTONIO	S105783953	HALO DISTRIBUTING CO	SAN ANTONIO, TX		Ind. Haz Waste

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
SAN ANTONIO	S105785197	TOM FAIREY	SAN ANTONIO, TX		Ind. Haz Waste
SAN ANTONIO	S105785198	TOM FAIREY	SAN ANTONIO, TX		Ind. Haz Waste
SAN ANTONIO	S105786049	EXXON CO. USA 63670	6523 SAN PEDRO SAN ANTONIO TX		Ind. Haz Waste
SAN ANTONIO	S105786050	EXXON CO. USA 63670	6523 SAN PEDRO SAN ANTONIO TX		Ind. Haz Waste
SAN ANTONIO	S105786051	EXXON CO USA 63670	6523 SAN PEDRO SAN ANTONIO TX		Ind. Haz Waste
SAN ANTONIO	S105786052	EXXON CO USA 63670	6523 SAN PEDRO SAN ANTONIO TX		Ind. Haz Waste
SAN ANTONIO	S105786053	EXXON CO USA 63670	6523 SAN PEDRO SAN ANTONIO TX		Ind. Haz Waste
SAN ANTONIO	S105786054	EXXON CO. USA 63280	802 SAN PEDRO SAN ANTONIO TX 7		Ind. Haz Waste
SAN ANTONIO	S105786055	EXXON CO. USA 63280	802 SAN PEDRO SAN ANTONIO TX 7		Ind. Haz Waste
SAN ANTONIO	S105784026	CALVENDER BUICK INCORPORATED	4515 SAN PEDRO,SAN ANTONIO		Ind. Haz Waste
SAN ANTONIO	S105782807	O'BOY SERVICE CO. OF S.A., INC	5452 SCHERTZ ROAD, SAN ANTONIO		Ind. Haz Waste
SAN ANTONIO	S105782808	O'BOY SERVICE CO. OF S.A., INC	5452 SCHERTZ ROAD, SAN ANTONIO		Ind. Haz Waste
SAN ANTONIO	S105243830		0.4 MI SE OF JONES-MALTSBERGER		SWF/LF
SAN ANTONIO	S105050664	FIRST QUALITY CYLINDERS	THE FIRST QUALITY CYLINDERS ST		SHWS
SAN ANTONIO	S105050675	PHIPPS PLATING	THE PHIPPS PLATING SITE IS LOC		SHWS
SAN ANTONIO	S105050691	J.C. PENNCO WASTE OIL SERVICE	THE J.C. PENNCO WASTE OIL SERV		SHWS
SAN ANTONIO	S104547079	AZTEC CERAMICS	THE AZTEC CERAMICS SITE IS LOC		SHWS
SAN ANTONIO	S105783568	DUO-FAST	1215 TRIPPLET,SAN ANTONIO		Ind. Haz Waste
SAN ANTONIO	S105783569	DUO-FAST	1215 TRIPPLET,SAN ANTONIO		Ind. Haz Waste
SAN ANTONIO	S105783652	MAKITA CORP	1221 TRIPPLET,SAN ANTONIO		Ind. Haz Waste
SAN ANTONIO	S105783653	MAKITA CORP	1221 TRIPPLET,SAN ANTONIO		Ind. Haz Waste
SAN ANTONIO	S105783654	MAKITA CORP	1221 TRIPPLET,SAN ANTONIO		Ind. Haz Waste
SAN ANTONIO	S105783655	MAKITA CORP	1221 TRIPPLET,SAN ANTONIO		Ind. Haz Waste
SAN ANTONIO	S105783656	MAKITA CORP	1221 TRIPPLET,SAN ANTONIO		Ind. Haz Waste
SAN ANTONIO	S105786262	CHEVRON #108579	103 W W WHITE / IH 10 SAN AN		Ind. Haz Waste
SAN ANTONIO	S105786263	CHEVRON #108579	103 W W WHITE / IH 10 SAN AN		Ind. Haz Waste

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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

Elapsed ASTM days: Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement of the ASTM standard.

FEDERAL ASTM STANDARD RECORDS

NPL: National Priority List

Source: EPA

Telephone: N/A

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 01/29/03

Date Made Active at EDR: 03/04/03

Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 02/04/03

Elapsed ASTM days: 28

Date of Last EDR Contact: 05/09/03

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)

Telephone: 202-564-7333

EPA Region 1

Telephone 617-918-1143

EPA Region 3

Telephone 215-814-5418

EPA Region 4

Telephone 404-562-8033

EPA Region 6

Telephone: 214-655-6659

EPA Region 8

Telephone: 303-312-6774

Proposed NPL: Proposed National Priority List Sites

Source: EPA

Telephone: N/A

Date of Government Version: 01/29/03

Date Made Active at EDR: 03/04/03

Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 02/04/03

Elapsed ASTM days: 28

Date of Last EDR Contact: 05/05/03

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

Source: EPA

Telephone: 703-413-0223

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 03/19/03

Date Made Active at EDR: 04/08/03

Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 03/24/03

Elapsed ASTM days: 15

Date of Last EDR Contact: 03/24/03

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Source: EPA

Telephone: 703-413-0223

As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/19/03
Date Made Active at EDR: 04/08/03
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 03/24/03
Elapsed ASTM days: 15
Date of Last EDR Contact: 03/24/03

CORRACTS: Corrective Action Report

Source: EPA
Telephone: 800-424-9346

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/31/03
Date Made Active at EDR: 05/08/03
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 04/07/03
Elapsed ASTM days: 31
Date of Last EDR Contact: 03/10/03

RCRIS: Resource Conservation and Recovery Information System

Source: EPA/NTIS
Telephone: 800-424-9346

Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA).

Date of Government Version: 09/09/02
Date Made Active at EDR: 10/28/02
Database Release Frequency: Varies

Date of Data Arrival at EDR: 09/24/02
Elapsed ASTM days: 34
Date of Last EDR Contact: 04/18/03

ERNS: Emergency Response Notification System

Source: National Response Center, United States Coast Guard
Telephone: 202-260-2342

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

Date of Government Version: 12/31/01
Date Made Active at EDR: 07/15/02
Database Release Frequency: Annually

Date of Data Arrival at EDR: 07/02/02
Elapsed ASTM days: 13
Date of Last EDR Contact: 04/28/03

FEDERAL ASTM SUPPLEMENTAL RECORDS

BRS: Biennial Reporting System

Source: EPA/NTIS
Telephone: 800-424-9346

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/99
Database Release Frequency: Biennially

Date of Last EDR Contact: 03/17/03
Date of Next Scheduled EDR Contact: 06/16/03

CONSENT: Superfund (CERCLA) Consent Decrees

Source: EPA Regional Offices
Telephone: Varies

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: N/A
Database Release Frequency: Varies

Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

ROD: Records Of Decision

Source: EPA
Telephone: 703-416-0223

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/09/03
Database Release Frequency: Annually

Date of Last EDR Contact: 04/07/03
Date of Next Scheduled EDR Contact: 07/07/03

DELISTED NPL: National Priority List Deletions

Source: EPA
Telephone: N/A

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 01/29/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 05/05/03
Date of Next Scheduled EDR Contact: 08/04/03

FINDS: Facility Index System/Facility Identification Initiative Program Summary Report

Source: EPA
Telephone: N/A

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 01/14/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/07/03
Date of Next Scheduled EDR Contact: 07/07/03

HMIRS: Hazardous Materials Information Reporting System

Source: U.S. Department of Transportation
Telephone: 202-366-4555

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

Date of Government Version: 11/30/02
Database Release Frequency: Annually

Date of Last EDR Contact: 04/25/03
Date of Next Scheduled EDR Contact: 07/21/03

MLTS: Material Licensing Tracking System

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 01/16/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/07/03
Date of Next Scheduled EDR Contact: 07/07/03

MINES: Mines Master Index File

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959

Date of Government Version: 03/11/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 03/31/03
Date of Next Scheduled EDR Contact: 06/30/03

NPL LIENS: Federal Superfund Liens

Source: EPA
Telephone: 205-564-4267

Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/15/91
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 02/27/03
Date of Next Scheduled EDR Contact: 05/26/03

PADS: PCB Activity Database System

Source: EPA
Telephone: 202-564-3887

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 12/12/02
Database Release Frequency: Annually

Date of Last EDR Contact: 05/12/03
Date of Next Scheduled EDR Contact: 08/11/03

DOD: Department of Defense Sites

Source: USGS
Telephone: 703-648-5920

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 10/01/02
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 05/12/03
Date of Next Scheduled EDR Contact: 08/11/03

RAATS: RCRA Administrative Action Tracking System

Source: EPA
Telephone: 202-564-4104

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/95
Database Release Frequency: No Update Planned

Date of Last EDR Contact: 03/10/03
Date of Next Scheduled EDR Contact: 06/09/03

TRIS: Toxic Chemical Release Inventory System

Source: EPA
Telephone: 202-260-1531

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/00
Database Release Frequency: Annually

Date of Last EDR Contact: 03/25/03
Date of Next Scheduled EDR Contact: 06/23/03

TSCA: Toxic Substances Control Act

Source: EPA
Telephone: 202-260-5521

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/98
Database Release Frequency: Every 4 Years

Date of Last EDR Contact: 03/06/03
Date of Next Scheduled EDR Contact: 06/09/03

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Source: EPA
Telephone: 202-564-2501

Date of Government Version: 04/15/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 06/24/03
Date of Next Scheduled EDR Contact: 06/23/03

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SSTS: Section 7 Tracking Systems

Source: EPA
Telephone: 202-564-5008

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/00
Database Release Frequency: Annually

Date of Last EDR Contact: 04/23/03
Date of Next Scheduled EDR Contact: 07/21/03

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-564-2501

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/15/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/24/03
Date of Next Scheduled EDR Contact: 06/23/03

STATE OF TEXAS ASTM STANDARD RECORDS

SHWS: State Superfund Registry

Source: Texas Commission on Environmental Quality
Telephone: 512-239-5680

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 02/28/03
Date Made Active at EDR: 05/08/03
Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 04/18/03
Elapsed ASTM days: 20
Date of Last EDR Contact: 04/18/03

SWF/LF: Permitted Solid Waste Facilities

Source: Texas Commission on Environmental Quality
Telephone: 512-239-6706

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 01/24/03
Date Made Active at EDR: 03/19/03
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 03/07/03
Elapsed ASTM days: 12
Date of Last EDR Contact: 02/24/03

CLI: Closed Landfill Inventory

Source: Texas Commission on Environmental Quality
Telephone: 512-239-6016

Closed and abandoned landfills (permitted as well as unauthorized) across the state of Texas.

Date of Government Version: 08/30/99
Date Made Active at EDR: 10/30/00
Database Release Frequency: Varies

Date of Data Arrival at EDR: 09/28/00
Elapsed ASTM days: 32
Date of Last EDR Contact: 05/06/03

LUST: Leaking Petroleum Storage Tank Database

Source: Texas Commission on Environmental Quality
Telephone: 512-239-2200

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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/18/03
Date Made Active at EDR: 05/21/03
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 05/08/03
Elapsed ASTM days: 13
Date of Last EDR Contact: 04/28/03

UST: Petroleum Storage Tank Database

Source: Texas Commission on Environmental Quality
Telephone: 512-239-2160

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 04/28/03
Date Made Active at EDR: 05/21/03
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 05/08/03
Elapsed ASTM days: 13
Date of Last EDR Contact: 04/28/03

VCP: Voluntary Cleanup Program Database

Source: Texas Commission on Environmental Quality
Telephone: 512-239-5891

The Texas Voluntary Cleanup Program was established to provide administrative, technical, and legal incentives to encourage the cleanup of contaminated sites in Texas.

Date of Government Version: 04/11/03
Date Made Active at EDR: 05/15/03
Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 05/05/03
Elapsed ASTM days: 10
Date of Last EDR Contact: 05/05/03

STATE OF TEXAS ASTM SUPPLEMENTAL RECORDS

AST: Petroleum Storage Tank Database

Source: Texas Commission on Environmental Quality
Telephone: 512-239-2160
Registered Aboveground Storage Tanks.

Date of Government Version: 02/07/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 04/28/03
Date of Next Scheduled EDR Contact: 07/28/03

SPILLS: Spills Database

Source: Texas Commission on Environmental Quality
Telephone: 512-239-0983

Date of Government Version: 08/15/02
Database Release Frequency: Quarterly

Date of Last EDR Contact: 03/25/03
Date of Next Scheduled EDR Contact: 06/23/03

IOP: Innocent Owner/Operator Program

Source: Texas Commission on Environmental Quality
Telephone: 512-239-5894

Contains information on all sites that are in the IOP. An IOP is an innocent owner or operator whose property is contaminated as a result of a release or migration of contaminants from a source or sources not located on the property, and they did not cause or contribute to the source or sources of contamination.

Date of Government Version: 01/14/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 05/12/03
Date of Next Scheduled EDR Contact: 08/11/03

Multimedia: Multi Media Enforcement Cases

Source: Texas Commission on Environmental Quality
Telephone: 512-239-6012

Any enforcement case with more than one media (water, waste, etc.) violation.

Date of Government Version: 03/07/03
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 03/10/03
Date of Next Scheduled EDR Contact: 06/09/03

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Ind. Haz Waste: Industrial & Hazardous Waste Database

Source: Texas Commission on Environmental Quality

Telephone: 512-239-0985

Summary reports reported by waste handlers, generators and shippers in Texas.

Date of Government Version: 12/31/01

Database Release Frequency: Annually

Date of Last EDR Contact: 05/06/03

Date of Next Scheduled EDR Contact: 08/04/03

WASTEMGT: Commercial Hazardous & Solid Waste Management Facilities

Source: Texas Commission on Environmental Quality

Telephone: 512-239-2920

This list contains commercial recycling facilities and facilities permitted or authorized (interim status) by the Texas Natural Resource Conservation Commission.

Date of Government Version: 06/01/98

Database Release Frequency: Varies

Date of Last EDR Contact: 05/05/03

Date of Next Scheduled EDR Contact: 08/04/03

AIRS: Current Emission Inventory Data

Source: Texas Commission on Environmental Quality

Telephone: N/A

The database lists by company, along with their actual emissions, the TNRCC air accounts that emit EPA criteria pollutants.

Date of Government Version: 11/12/02

Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 04/15/03

Date of Next Scheduled EDR Contact: 07/14/03

EDR PROPRIETARY HISTORICAL DATABASES

Former Manufactured Gas (Coal Gas) Sites: The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. ©Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

Disclaimer Provided by Real Property Scan, Inc.

The information contained in this report has predominantly been obtained from publicly available sources produced by entities other than Real Property Scan. While reasonable steps have been taken to insure the accuracy of this report, Real Property Scan does not guarantee the accuracy of this report. Any liability on the part of Real Property Scan is strictly limited to a refund of the amount paid. No claim is made for the actual existence of toxins at any site. This report does not constitute a legal opinion.

STATE OF TEXAS BROWNFIELDS DATABASES RECORDS**Brownfields:** Brownfields Site Assessments

Source: TCEQ

Telephone: 512-239-5872

Brownfield site assessments that are being cleaned under EPA grant monies.

Date of Government Version: 04/11/03

Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 05/05/03

Date of Next Scheduled EDR Contact: 08/04/03

VCP: Voluntary Cleanup Program Database

Source: Texas Commission on Environmental Quality

Telephone: 512-239-5891

The Texas Voluntary Cleanup Program was established to provide administrative, technical, and legal incentives to encourage the cleanup of contaminated sites in Texas.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/11/03
Database Release Frequency: Quarterly

Date of Last EDR Contact: 05/05/03
Date of Next Scheduled EDR Contact: 08/04/03

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data

Source: PennWell Corporation
Telephone: (800) 823-6277

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

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.
Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health
Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics
Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics
Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Child Care Facility List

Source: Department of Protective & Regulatory Services
Telephone: 512-438-3269

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

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

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STREET AND ADDRESS INFORMATION

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GEOCHECK[®] - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

OLMOS CREEK AQUATIC RESTORATION SEC 206
OLMOS CREEK AQUATIC
SAN ANTONIO, TX 78212

TARGET PROPERTY COORDINATES

Latitude (North):	29.488199 - 29° 29' 17.5"
Longitude (West):	98.488297 - 98° 29' 17.9"
Universal Transverse Mercator:	Zone 14
UTM X (Meters):	549604.9
UTM Y (Meters):	3262007.0
Elevation:	721 ft. above sea level

EDR's GeoCheck Physical Setting Source Addendum has been developed to assist the environmental professional with the collection of physical setting source information in accordance with ASTM 1527-00, Section 7.2.3. Section 7.2.3 requires that a current USGS 7.5 Minute Topographic Map (or equivalent, such as the USGS Digital Elevation Model) be reviewed. It also requires that one or more additional physical setting sources be sought when (1) conditions have been identified in which hazardous substances or petroleum products are likely to migrate to or from the property, and (2) more information than is provided in the current USGS 7.5 Minute Topographic Map (or equivalent) is generally obtained, pursuant to local good commercial or customary practice, to assess the impact of migration of recognized environmental conditions in connection with the property. Such additional physical setting sources generally include information about the topographic, hydrologic, hydrogeologic, and geologic characteristics of a site, and wells in the area.

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

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

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata. EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

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

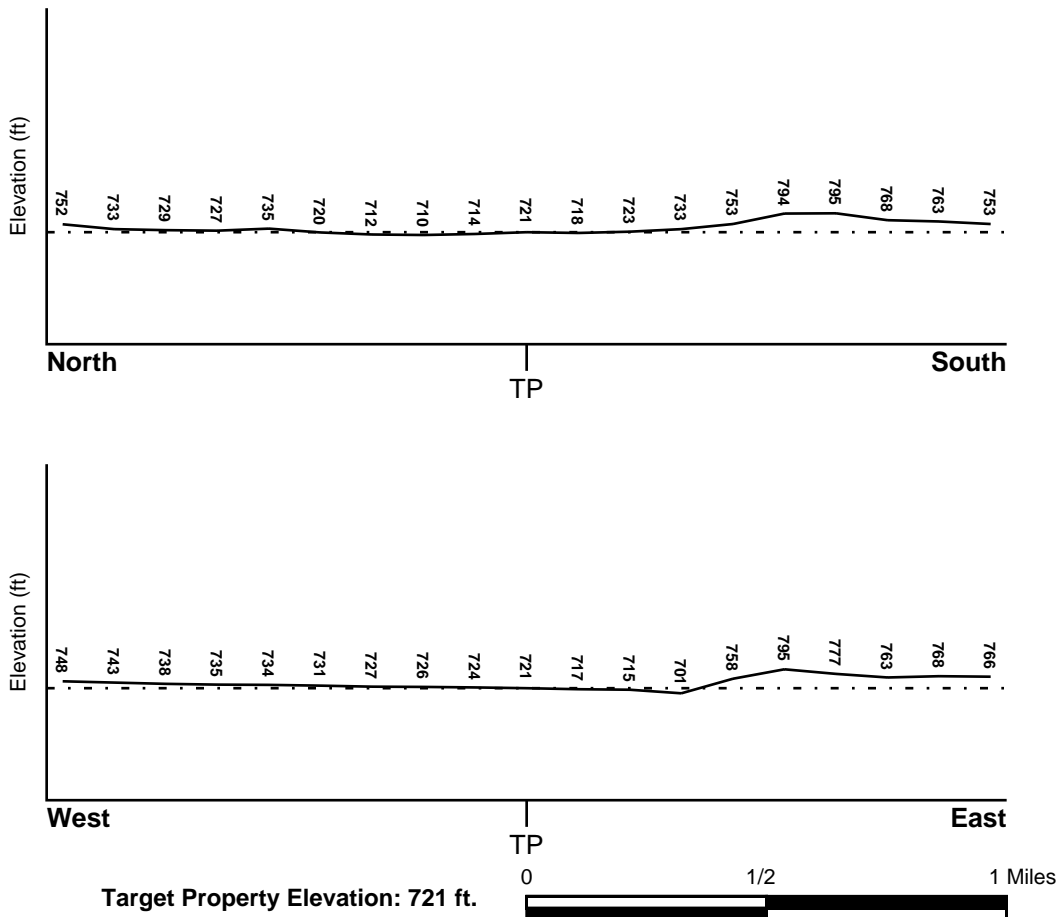
TOPOGRAPHIC INFORMATION

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

TARGET PROPERTY TOPOGRAPHY

USGS Topographic Map: 2429098-D4 SAN ANTONIO EAST, TX
General Topographic Gradient: General NNE
Source: USGS 7.5 min quad index

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



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

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

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

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

FEMA FLOOD ZONE

Target Property County
BEXAR, TX

FEMA Flood
Electronic Data
YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 48029C0451E

Additional Panels in search area:
48029C0289E
48029C0288E
48029C0269E
48029C0452E
48029C0432E
48029C0454E
48029C0453E
48029C0434E

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property
SAN ANTONIO EAST

NWI Electronic
Data Coverage
Not Available

HYDROGEOLOGIC INFORMATION

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

Site-Specific Hydrogeological Data*:

Search Radius: 1.25 miles
Status: Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

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

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

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

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

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

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

ROCK STRATIGRAPHIC UNIT

Era: Mesozoic
System: Cretaceous
Series: Austin and Eagle Ford Groups
Code: uK2 (*decoded above as Era, System & Series*)

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

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

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

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

Soil Component Name: AUSTIN
Soil Surface Texture: silty clay
Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.
Soil Drainage Class: Well drained. Soils have intermediate water holding capacity. Depth to water table is more than 6 feet.

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: HIGH

Depth to Bedrock Min: > 20 inches

Depth to Bedrock Max: > 40 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Permeability Rate (in/hr)	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	15 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 0.60 Min: 0.20	Max: 8.40 Min: 7.90
2	15 inches	30 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 0.60 Min: 0.20	Max: 8.40 Min: 7.90
3	30 inches	36 inches	weathered bedrock	Not reported	Not reported	Max: 2.00 Min: 0.06	Max: 0.00 Min: 0.00

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinator soil types may appear within the general area of target property.

Soil Surface Textures: clay
gravelly - loam
loam

Surficial Soil Types: clay
gravelly - loam
loam

Shallow Soil Types: No Other Soil Types

Deeper Soil Types: clay
unweathered bedrock
loam

ADDITIONAL ENVIRONMENTAL RECORD SOURCES

According to ASTM E 1527-00, Section 7.2.2, "one or more additional state or local sources of environmental records may be checked, in the discretion of the environmental professional, to enhance and supplement federal and state sources... Factors to consider in determining which local or additional state records, if any, should be checked include (1) whether they are reasonably ascertainable, (2) whether they are sufficiently useful, accurate, and complete in light of the objective of the records review (see 7.1.1), and (3) whether they are obtained, pursuant to local, good commercial or customary practice." One of the record sources listed in Section 7.2.2 is water well information. Water well information can be used to assist the environmental professional in assessing sources that may impact groundwater flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

WELL SEARCH DISTANCE INFORMATION

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

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

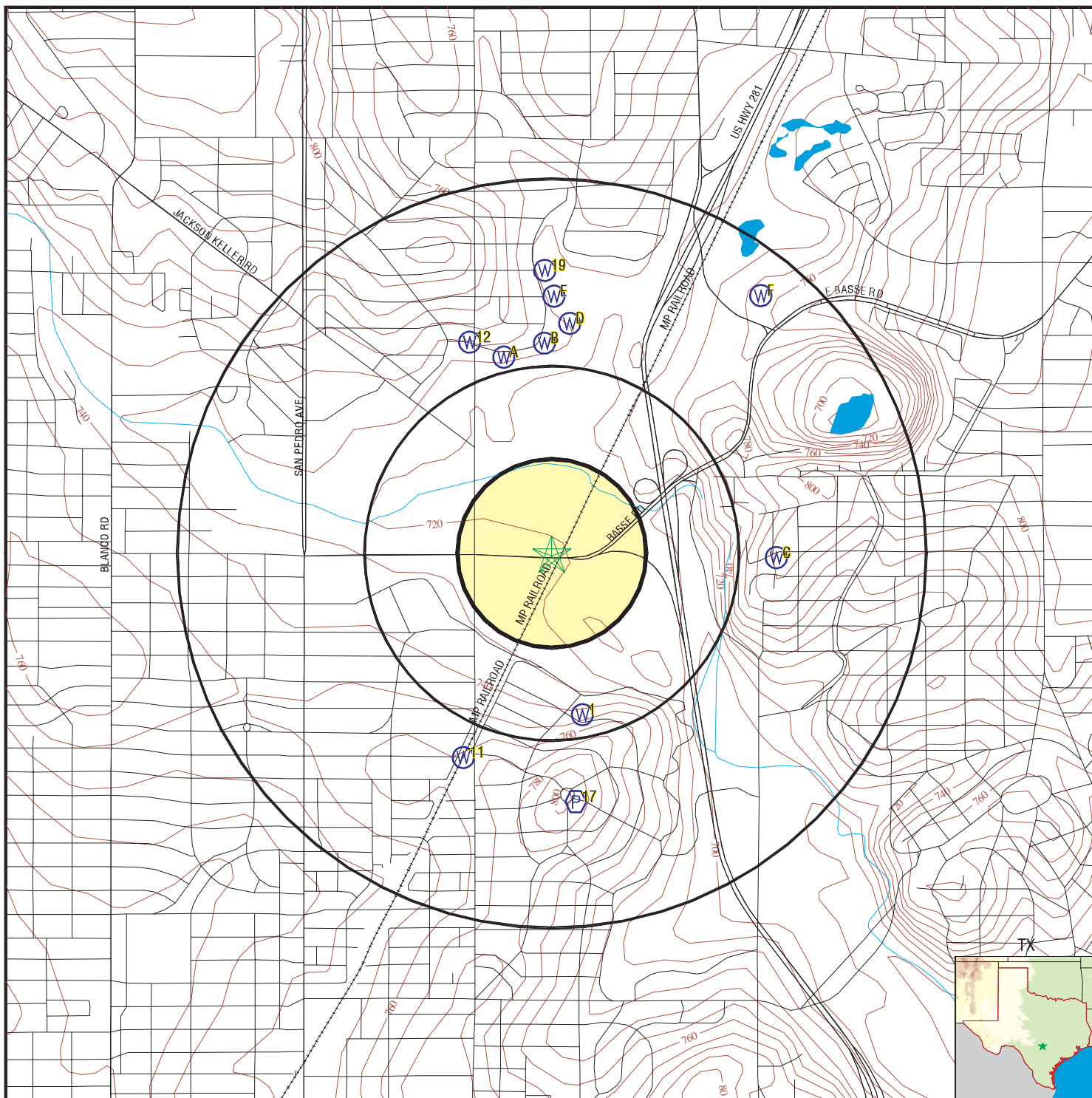
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
17	TX1330079	1/2 - 1 Mile South

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

STATE DATABASE WELL INFORMATION

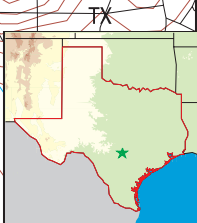
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	B6837111	1/4 - 1/2 Mile South
A2	S000635	1/2 - 1 Mile NNW
B3	S000634	1/2 - 1 Mile North
A4	B6837106	1/2 - 1 Mile North
B5	S000633	1/2 - 1 Mile North
B6	S000636	1/2 - 1 Mile North
B7	B6837105	1/2 - 1 Mile North
B8	S000637	1/2 - 1 Mile North
C9	B6837123	1/2 - 1 Mile East
D10	B6837104	1/2 - 1 Mile North
11	B6837107	1/2 - 1 Mile SSW
12	B6837116	1/2 - 1 Mile NNW
C13	S000735	1/2 - 1 Mile East
D14	S000638	1/2 - 1 Mile North
D15	B6837103	1/2 - 1 Mile North
E16	B6837102	1/2 - 1 Mile North
E18	S000731	1/2 - 1 Mile North
19	B6837101	1/2 - 1 Mile North
F20	B6837118	1/2 - 1 Mile NE
F21	B6837117	1/2 - 1 Mile NE
F22	B6837108	1/2 - 1 Mile NE
F23	B6837113	1/2 - 1 Mile NE

PHYSICAL SETTING SOURCE MAP - 0981078.1s



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

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil or gas wells (in certain Texas counties)



TARGET PROPERTY:	Olmos Creek Aquatic Restoration Sec 206	CUSTOMER:	U.S. Army Corps of Engineers
ADDRESS:	Olmos Creek Aquatic	CONTACT:	Eric Kirwan
CITY/STATE/ZIP:	San Antonio TX 78212	INQUIRY #:	0981078.1s
LAT/LONG:	29.4882 / 98.4883	DATE:	May 21, 2003 12:59 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

1
South
1/4 - 1/2 Mile
Higher

TX WELLS B6837111

St_well_nu:	6837111	Cnty_code:	Bexar
Basin:	SAN ANTONIO RIVER	Zone:	1
Reg_num:	11	Prev_well_:	300
Longitude:	982913	Latitude:	292855
Owner:	Daniel Forestier		
Driller:	J. T. Johnson Water Drilling & Service		
Coord_src:	1		
Aqu_code:	EDWARDS AND ASSOCIATED LIMESTONES		
Aqu_id1:	11	Aqu_id2:	Not Reported
Aqu_id3:	Not Reported	Lsd_elev:	750
Meas_elev:	M	Use_cd_eco:	Not Reported
Date_drill:	03--1953	Well_typ:	W
Well_depth:	450	Src_depth:	reported by Owner,certain or documented depth
Type_lift:	Submersible Pump	Type of Power:	Electric Motor
Horsepower:	20.00	Primary use:	Irrigation
Secondary use:	Not Reported	Tert use:	Not Reported
Avg Level:	M	Water quality:	N
Water Logs Available:	Not Reported		
Other data avail:	Not Reported		
Date collected:	Not Reported	Reporting agency:	Not Reported
Well_sched:	Y	Const method:	not reported
Completion:	not reported	Case_mater:	not reported
Screen_mat:	not reported	Lith_log:	Not Reported
Int_lith_b:	Not Reported	Lith_date:	Not Reported

Water Level Information - 2x Month::

Measurement Number:	01	Measurement Date:	3/0/1953
Depth from land surface:	-116.0	Visit Mark:	Publishable - water-level is indicative of aquifer's piezometric surface
Measurement Method:	Not Reported	Measuring Agency:	Not Reported
Remark:	MEASUREMENT GOOD. NO UNUSUAL CONDITIONS NOTED AT OR NEAR WELL SITE		

Remarks:

Open hole from 249 to 450 ft. Top of Edwards 243 ft. Pump set at 150 ft.

A2
NNW
1/2 - 1 Mile
Higher

TX WELLS S000635

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

GIS Id:	10000638	Pws Id:	0150018
Water Source:	G0150018AC	Owner:	BASIN #6
Hydrologic code:	12100301	Stream Segment:	Not Reported
Waterbody:	Not Reported	State wellno:	6837104
Welldepth:	995	Depth agency:	Water Well driller
Depth source:	Recorded on driller's log or state well report		
Aquifer:	218EBFZA		
Drilldate:	19630100	Welldata:	not reported
Elevatn:	734	Elevmeth:	Topographic Map Interpolation
V_datum:	1929 North American Datum	Aquifer method:	Well Schedule
Latitude:	292943	Longitude:	982926
Accuracy:	Fair - Surveyor had to use a vehicle odometer and/or pacing to locate the water source. Plotted location may not be within 100 ft. (30 m) of the actual location.		
Collecting Org:	Texas Natural Resource Conservation Commission		
Location Meth:	Map interpolation, via digital source, Method 1: Water source location was manually plotted on USGS 7.5-minute topographic quadrangle and subsequently digitized.		
Horiz datum:	North American Datum 1927 (NAD27)		
Mapscale:	7.5' X 7.5' (1:24,000)	Fips:	029
Quadnum:	2998-133	Collection date:	Not Reported
Latitude:	29.4953	Longitude:	98.4906
Initials:	JSA	Last changed:	07/10/1995 00:00:00
Remarks:	Not Reported	Status:	Operating (Active)
Description:	not reported	Elevation:	223.7

**B3
North
1/2 - 1 Mile
Higher**

TX WELLS S000634

GIS Id:	10000637	Pws Id:	0150018
Water Source:	G0150018AB	Owner:	BASIN #2
Hydrologic code:	12100301	Stream Segment:	Not Reported
Waterbody:	Not Reported	State wellno:	6837103
Welldepth:	1025	Depth agency:	Water Well driller
Depth source:	Recorded on driller's log or state well report		
Aquifer:	218EBFZA		
Drilldate:	19600527	Welldata:	not reported
Elevatn:	729	Elevmeth:	Topographic Map Interpolation
V_datum:	1929 North American Datum	Aquifer method:	Well Schedule
Latitude:	292945	Longitude:	982920
Accuracy:	Fair - Surveyor had to use a vehicle odometer and/or pacing to locate the water source. Plotted location may not be within 100 ft. (30 m) of the actual location.		
Collecting Org:	Texas Natural Resource Conservation Commission		
Location Meth:	Map interpolation, via digital source, Method 1: Water source location was manually plotted on USGS 7.5-minute topographic quadrangle and subsequently digitized.		
Horiz datum:	North American Datum 1927 (NAD27)		
Mapscale:	7.5' X 7.5' (1:24,000)	Fips:	029
Quadnum:	2998-133	Collection date:	Not Reported
Latitude:	29.4958	Longitude:	98.4889
Initials:	JSA	Last changed:	07/10/1995 00:00:00
Remarks:	Not Reported	Status:	Operating (Active)
Description:	not reported	Elevation:	222.2

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

TX WELLS B6837106

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

St_well_nu:	6837106	Cnty_code:	Bexar
Basin:	SAN ANTONIO RIVER	Zone:	1
Reg_num:	11	Prev_well_:	Not Reported
Longitude:	982924	Latitude:	292946
Owner:	San Antonio Water Sys. Basin Station #5		
Driller:	Layne-Texas Co.		
Coord_src:	1		
Aqu_code:	EDWARDS AND ASSOCIATED LIMESTONES - (BALCONES FAULT ZONE AQUIFER)		
Aqu_id1:	11	Aqu_id2:	Not Reported
Aqu_id3:	Not Reported	Lsd_elev:	725
Meas_elev:	M	Use_cd_eco:	764200
Date_drill:	01--1963	Well_typ:	W
Well_depth:	986	Src_depth:	Driller's log/Well report
Type_lift:	Turbine Pump	Type of Power:	Electric Motor
Horsepower:	400.00	Primary use:	Public Supply
Secondary use:	Not Reported	Tert use:	Not Reported
Avg Level:	N	Water quality:	Y
Water Logs Available:	Drillers,Electric		
Other data avail:	Not Reported		
Date collected:	05231996	Reporting agency:	Other State Agencies
Well_sched:	Y	Const method:	not reported
Completion:	not reported	Case_mater:	not reported
Screen_mat:	not reported	Lith_log:	Not Reported
Int_lith_b:	Not Reported	Lith_date:	Not Reported

Water Quality Information::

Sample Number:	1	Sample Date:	8/4/1967
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	73.0
Magnesium Flag:	Not Reported	Magnesium MGL:	17.0
Sodium Flag:	Not Reported	Sodium MGL:	6
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	258.71
Sulfate Flag:	Not Reported	Sulfate MGL:	32.0
Chloride Flag:	Not Reported	Chloride MGL:	13.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.3
Nitrate Flag:	Not Reported	Nitrate MGL:	5.5
pH Flag:	Not Reported	pH:	7.7
Total Dissolved Fluids:	274	Total Hardness:	252
Phenol Alkalinity:	0.0	Total Alkalinity:	212.0
SAR:	0.16	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	534
Percent Sodium:	4		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		
Lab Name:	Texas Department of Health		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Sample Date:	9/2/1977
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	78.0
Magnesium Flag:	Not Reported	Magnesium MGL:	17.0
Sodium Flag:	Not Reported	Sodium MGL:	8
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	269.7
Sulfate Flag:	Not Reported	Sulfate MGL:	30.0
Chloride Flag:	Not Reported	Chloride MGL:	15.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.2
Nitrate Flag:	Not Reported	Nitrate MGL:	7.3
pH Flag:	Not Reported	pH:	7.6
Total Dissolved Fluids:	288	Total Hardness:	264
Phenol Alkalinity:	0.0	Total Alkalinity:	221.0
SAR:	0.21	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	556
Percent Sodium:	6		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		
Lab Name:	Texas Department of Health		

Sample Number:	1	Sample Date:	3/5/1979
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	77.0
Magnesium Flag:	Not Reported	Magnesium MGL:	16.0
Sodium Flag:	Not Reported	Sodium MGL:	8
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	262.37
Sulfate Flag:	Not Reported	Sulfate MGL:	34.0
Chloride Flag:	Not Reported	Chloride MGL:	15.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.3
Nitrate Flag:	Not Reported	Nitrate MGL:	7.2
pH Flag:	Not Reported	pH:	7.4
Total Dissolved Fluids:	286	Total Hardness:	257
Phenol Alkalinity:	0.0	Total Alkalinity:	215.0
SAR:	0.22	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	552
Percent Sodium:	6		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		
Lab Name:	Texas Department of Health		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number: 1	Sample Date: 5/14/1980
Temperature (C): Not Reported	Sampled Aquifer Code: Not Reported
Top of sampled interval: Not Reported	Bottom of sampled interval: Not Reported
Balanced/unbal Analysis: B	Collection Agency: RAW SUPPLY
Silica Flag: Not Reported	Silica MGL: Not Reported
Calcium Flag: Not Reported	Calcium MGL: 77.0
Magnesium Flag: Not Reported	Magnesium MGL: 17.0
Sodium Flag: Not Reported	Sodium MGL: 9
Potassium Flag: Not Reported	Potassium MGL: Not Reported
Strontium Flag: Not Reported	Strontium MGL: Not Reported
Carbonate MGL: 0.0	Bicarbonate MGL: 267.26
Sulfate Flag: Not Reported	Sulfate MGL: 34.0
Chloride Flag: Not Reported	Chloride MGL: 15.0
Fluoride Flag: Not Reported	Fluoride MGL: 0.2
Nitrate Flag: Not Reported	Nitrate MGL: 7.4
pH Flag: Not Reported	pH: 7.8
Total Dissolved Fluids: 291	Total Hardness: 261
Phenol Alkalinity: 0.0	Total Alkalinity: 219.0
SAR: 0.24	RSC: 0.0
Specific Conductance: Not Reported	Spec. Conductance Flag: 564
Percent Sodium: 6	
Collection Remark: raw supply	
Reliability Remark: Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored	
Lab Name: Texas Department of Health	

Sample Number: 1	Sample Date: 4/19/1984
Temperature (C): Not Reported	Sampled Aquifer Code: Not Reported
Top of sampled interval: Not Reported	Bottom of sampled interval: Not Reported
Balanced/unbal Analysis: B	Collection Agency: RAW SUPPLY
Silica Flag: Not Reported	Silica MGL: Not Reported
Calcium Flag: Not Reported	Calcium MGL: 75.0
Magnesium Flag: Not Reported	Magnesium MGL: 14.0
Sodium Flag: Not Reported	Sodium MGL: 9
Potassium Flag: Not Reported	Potassium MGL: Not Reported
Strontium Flag: Not Reported	Strontium MGL: Not Reported
Carbonate MGL: 0.0	Bicarbonate MGL: 261.15
Sulfate Flag: Not Reported	Sulfate MGL: 24.0
Chloride Flag: Not Reported	Chloride MGL: 14.0
Fluoride Flag: Not Reported	Fluoride MGL: 0.2
Nitrate Flag: Not Reported	Nitrate MGL: 7.27
pH Flag: Not Reported	pH: 7.9
Total Dissolved Fluids: 271	Total Hardness: 244
Phenol Alkalinity: 0.0	Total Alkalinity: 214.0
SAR: 0.25	RSC: 0.0
Specific Conductance: Not Reported	Spec. Conductance Flag: 544
Percent Sodium: 7	
Collection Remark: raw supply	
Reliability Remark: Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored	
Lab Name: Texas Department of Health	

Well Casing Information::

Indicator	Diameter	Top of Interval	Bottom of Interval
Open Hole	Not Reported	547	986

Infrequent Constituent Information::

Sample Number: 1	Storet Number: 01045
Sample Flag: Not Reported	Sample Date: 8/4/1967
Constituent Value: 280.	Confidence (+ or -): Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Storet Code Description:	IRON, TOTAL (UG/L AS FE)	Unit of Measurement:	UG/L
Constituent Name:	IRON		
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	8/4/1967
Constituent Value:	50.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	Not Reported	Sample Date:	9/2/1977
Constituent Value:	180.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	9/2/1977
Constituent Value:	50.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	Not Reported	Sample Date:	3/5/1979
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	Not Reported	Sample Date:	3/5/1979
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	<	Sample Date:	5/14/1980
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	5/14/1980
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	Not Reported	Sample Date:	4/19/1984
Constituent Value:	50.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	4/19/1984
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L

Remarks:

Tested at 7382 gpm with 4 ft draw- down in 1963. Cemented to 547 ft.

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

B5
North
1/2 - 1 Mile
Higher

TX WELLS S000633

GIS Id:	10000636	Pws Id:	0150018
Water Source:	G0150018AA	Owner:	BASIN #1
Hydrologic code:	12100301	Stream Segment:	Not Reported
Waterbody:	Not Reported	State wellno:	6837102
Welldepth:	1088	Depth agency:	Water Well driller
Depth source:	Recorded on driller's log or state well report		
Aquifer:	218EBFZA		
Drilldate:	19571118	Welldata:	not reported
Elevatn:	724	Elevmeth:	Topographic Map Interpolation
V_datum:	1929 North American Datum	Aquifer method:	Well Schedule
Latitude:	292946	Longitude:	982917
Accuracy:	Fair - Surveyor had to use a vehicle odometer and/or pacing to locate the water source. Plotted location may not be within 100 ft. (30 m) of the actual location.		
Collecting Org:	Texas Natural Resource Conservation Commission		
Location Meth:	Map interpolation, via digital source, Method 1: Water source location was manually plotted on USGS 7.5-minute topographic quadrangle and subsequently digitized.		
Horiz datum:	North American Datum 1927 (NAD27)		
Mapscale:	7.5' X 7.5' (1:24,000)	Fips:	029
Quadnum:	2998-133	Collection date:	Not Reported
Latitude:	29.4961	Longitude:	98.4881
Initials:	JSA	Last changed:	07/10/1995 00:00:00
Remarks:	Not Reported	Status:	Operating (Active)
Description:	not reported	Elevation:	220.7

B6
North
1/2 - 1 Mile
Higher

TX WELLS S000636

GIS Id:	10000639	Pws Id:	0150018
Water Source:	G0150018AD	Owner:	BASIN #3
Hydrologic code:	12100301	Stream Segment:	Not Reported
Waterbody:	Not Reported	State wellno:	6837105
Welldepth:	1050	Depth agency:	Water Well driller
Depth source:	Recorded on driller's log or state well report		
Aquifer:	218EBFZA		
Drilldate:	19580312	Welldata:	not reported
Elevatn:	733	Elevmeth:	Topographic Map Interpolation
V_datum:	1929 North American Datum	Aquifer method:	Well Schedule
Latitude:	292946	Longitude:	982919
Accuracy:	Fair - Surveyor had to use a vehicle odometer and/or pacing to locate the water source. Plotted location may not be within 100 ft. (30 m) of the actual location.		
Collecting Org:	Texas Natural Resource Conservation Commission		
Location Meth:	Map interpolation, via digital source, Method 1: Water source location was manually plotted on USGS 7.5-minute topographic quadrangle and subsequently digitized.		
Horiz datum:	North American Datum 1927 (NAD27)		
Mapscale:	7.5' X 7.5' (1:24,000)	Fips:	029
Quadnum:	2998-133	Collection date:	Not Reported
Latitude:	29.4961	Longitude:	98.4886
Initials:	JSA	Last changed:	07/10/1995 00:00:00
Remarks:	Not Reported	Status:	Operating (Active)
Description:	not reported	Elevation:	223.4

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

B7
North
1/2 - 1 Mile
Higher

TX WELLS B6837105

St_well_nu:	6837105	Cnty_code:	Bexar
Basin:	SAN ANTONIO RIVER	Zone:	1
Reg_num:	11	Prev_well_:	Not Reported
Longitude:	982918	Latitude:	292947
Owner:	San Antonio Water Sys. Basin Station #3		
Driller:	J. R. Johnson Drilling & Supplies		
Coord_src:	1		
Aqu_code:	EDWARDS AND ASSOCIATED LIMESTONES - (BALCONES FAULT ZONE AQUIFER)		
Aqu_id1:	11	Aqu_id2:	Not Reported
Aqu_id3:	Not Reported	Lsd_elev:	733
Meas_elev:	M	Use_cd_eco:	764200
Date_drill:	03121958	Well_typ:	W
Well_depth:	1044	Src_depth:	Driller's log/Well report
Type_lift:	Turbine Pump	Type of Power:	Electric Motor
Horsepower:	350.00	Primary use:	Public Supply
Secondary use:	Not Reported	Tert use:	Not Reported
Avg Level:	N	Water quality:	Y
Water Logs Available:	Drillers,Electric		
Other data avail:	Not Reported		
Date collected:	05231996	Reporting agency:	Other State Agencies
Well_sched:	Y	Const method:	not reported
Completion:	not reported	Case_mater:	not reported
Screen_mat:	not reported	Lith_log:	Not Reported
Int_lith_b:	Not Reported	Lith_date:	Not Reported

Water Quality Information::

Sample Number:	1	Sample Date:	10/2/1973
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	67.0
Magnesium Flag:	Not Reported	Magnesium MGL:	16.0
Sodium Flag:	Not Reported	Sodium MGL:	9
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	241.63
Sulfate Flag:	Not Reported	Sulfate MGL:	24.0
Chloride Flag:	Not Reported	Chloride MGL:	16.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.4
Nitrate Flag:	Not Reported	Nitrate MGL:	5.3
pH Flag:	Not Reported	pH:	7.6
Total Dissolved Fluids:	256	Total Hardness:	233
Phenol Alkalinity:	0.0	Total Alkalinity:	198.0
SAR:	0.26	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	500
Percent Sodium:	7		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		
Lab Name:	Texas Department of Health		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number: 1	Sample Date: 4/30/1974
Temperature (C): Not Reported	Sampled Aquifer Code: Not Reported
Top of sampled interval: Not Reported	Bottom of sampled interval: Not Reported
Balanced/unbal Analysis: B	Collection Agency: RAW SUPPLY
Silica Flag: Not Reported	Silica MGL: Not Reported
Calcium Flag: Not Reported	Calcium MGL: 76.0
Magnesium Flag: Not Reported	Magnesium MGL: 17.0
Sodium Flag: Not Reported	Sodium MGL: 8
Potassium Flag: Not Reported	Potassium MGL: Not Reported
Strontium Flag: Not Reported	Strontium MGL: Not Reported
Carbonate MGL: 0.0	Bicarbonate MGL: 263.59
Sulfate Flag: Not Reported	Sulfate MGL: 35.0
Chloride Flag: Not Reported	Chloride MGL: 14.0
Fluoride Flag: Not Reported	Fluoride MGL: 0.2
Nitrate Flag: Not Reported	Nitrate MGL: 7.0
pH Flag: Not Reported	pH: 7.6
Total Dissolved Fluids: 286	Total Hardness: 259
Phenol Alkalinity: 0.0	Total Alkalinity: 216.0
SAR: 0.22	RSC: 0.0
Specific Conductance: Not Reported	Spec. Conductance Flag: 552
Percent Sodium: 6	
Collection Remark: raw supply	
Reliability Remark: Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored	
Lab Name: Texas Department of Health	

Sample Number: 1	Sample Date: 2/11/1977
Temperature (C): Not Reported	Sampled Aquifer Code: Not Reported
Top of sampled interval: Not Reported	Bottom of sampled interval: Not Reported
Balanced/unbal Analysis: B	Collection Agency: RAW SUPPLY
Silica Flag: Not Reported	Silica MGL: Not Reported
Calcium Flag: Not Reported	Calcium MGL: 76.0
Magnesium Flag: Not Reported	Magnesium MGL: 16.0
Sodium Flag: Not Reported	Sodium MGL: 9
Potassium Flag: Not Reported	Potassium MGL: Not Reported
Strontium Flag: Not Reported	Strontium MGL: Not Reported
Carbonate MGL: 0.0	Bicarbonate MGL: 264.82
Sulfate Flag: Not Reported	Sulfate MGL: 33.0
Chloride Flag: Not Reported	Chloride MGL: 15.0
Fluoride Flag: Not Reported	Fluoride MGL: 0.2
Nitrate Flag: Not Reported	Nitrate MGL: 7.0
pH Flag: Not Reported	pH: 7.8
Total Dissolved Fluids: 286	Total Hardness: 255
Phenol Alkalinity: 0.0	Total Alkalinity: 217.0
SAR: 0.24	RSC: 0.0
Specific Conductance: Not Reported	Spec. Conductance Flag: 556
Percent Sodium: 7	
Collection Remark: raw supply	
Reliability Remark: Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored	
Lab Name: Texas Department of Health	

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Sample Date:	10/27/1978
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	80.0
Magnesium Flag:	Not Reported	Magnesium MGL:	13.0
Sodium Flag:	Not Reported	Sodium MGL:	8
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	266.04
Sulfate Flag:	Not Reported	Sulfate MGL:	34.0
Chloride Flag:	Not Reported	Chloride MGL:	15.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.3
Nitrate Flag:	Not Reported	Nitrate MGL:	7.0
pH Flag:	Not Reported	pH:	7.6
Total Dissolved Fluids:	288	Total Hardness:	252
Phenol Alkalinity:	0.0	Total Alkalinity:	218.0
SAR:	0.22	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	560
Percent Sodium:	6		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		

Lab Name: Texas Department of Health

Sample Number:	1	Sample Date:	3/23/1979
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	76.0
Magnesium Flag:	Not Reported	Magnesium MGL:	16.0
Sodium Flag:	Not Reported	Sodium MGL:	8
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	264.82
Sulfate Flag:	Not Reported	Sulfate MGL:	34.0
Chloride Flag:	Not Reported	Chloride MGL:	15.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.2
Nitrate Flag:	Not Reported	Nitrate MGL:	7.0
pH Flag:	Not Reported	pH:	7.7
Total Dissolved Fluids:	286	Total Hardness:	255
Phenol Alkalinity:	0.0	Total Alkalinity:	217.0
SAR:	0.22	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	560
Percent Sodium:	6		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		

Lab Name: Texas Department of Health

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Sample Date:	7/17/1980
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	76.0
Magnesium Flag:	Not Reported	Magnesium MGL:	15.0
Sodium Flag:	Not Reported	Sodium MGL:	8
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	263.59
Sulfate Flag:	Not Reported	Sulfate MGL:	32.0
Chloride Flag:	Not Reported	Chloride MGL:	15.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.2
Nitrate Flag:	Not Reported	Nitrate MGL:	6.8
pH Flag:	Not Reported	pH:	7.9
Total Dissolved Fluids:	282	Total Hardness:	251
Phenol Alkalinity:	0.0	Total Alkalinity:	216.0
SAR:	0.22	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	572
Percent Sodium:	6		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		
Lab Name:	Texas Department of Health		

Sample Number:	1	Sample Date:	5/27/1983
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	72.0
Magnesium Flag:	Not Reported	Magnesium MGL:	17.0
Sodium Flag:	Not Reported	Sodium MGL:	9
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	262.37
Sulfate Flag:	Not Reported	Sulfate MGL:	28.0
Chloride Flag:	Not Reported	Chloride MGL:	15.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.2
Nitrate Flag:	Not Reported	Nitrate MGL:	7.04
pH Flag:	Not Reported	pH:	8.0
Total Dissolved Fluids:	277	Total Hardness:	249
Phenol Alkalinity:	0.0	Total Alkalinity:	215.0
SAR:	0.25	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	540
Percent Sodium:	7		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		
Lab Name:	Texas Department of Health		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number: 1	Sample Date: 3/8/1984
Temperature (C): Not Reported	Sampled Aquifer Code: Not Reported
Top of sampled interval: Not Reported	Bottom of sampled interval: Not Reported
Balanced/unbal Analysis: B	Collection Agency: RAW SUPPLY
Silica Flag: Not Reported	Silica MGL: Not Reported
Calcium Flag: Not Reported	Calcium MGL: 73.0
Magnesium Flag: Not Reported	Magnesium MGL: 17.0
Sodium Flag: Not Reported	Sodium MGL: 8
Potassium Flag: Not Reported	Potassium MGL: Not Reported
Strontium Flag: Not Reported	Strontium MGL: Not Reported
Carbonate MGL: 0.0	Bicarbonate MGL: 261.15
Sulfate Flag: Not Reported	Sulfate MGL: 27.0
Chloride Flag: Not Reported	Chloride MGL: 14.0
Fluoride Flag: Not Reported	Fluoride MGL: 0.2
Nitrate Flag: Not Reported	Nitrate MGL: 6.96
pH Flag: Not Reported	pH: 7.9
Total Dissolved Fluids: 274	Total Hardness: 251
Phenol Alkalinity: 0.0	Total Alkalinity: 214.0
SAR: 0.22	RSC: 0.0
Specific Conductance: Not Reported	Spec. Conductance Flag: 548
Percent Sodium: 6	
Collection Remark: raw supply	
Reliability Remark: Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored	
Lab Name: Texas Department of Health	

Sample Number: 1	Sample Date: 8/27/1998 1135
Temperature (C): 24	Sampled Aquifer Code: Not Reported
Top of sampled interval: Not Reported	Bottom of sampled interval: Not Reported
Balanced/unbal Analysis: B	Collection Agency: Not Reported
Silica Flag: Not Reported	Silica MGL: 13.0
Calcium Flag: Not Reported	Calcium MGL: 75.4
Magnesium Flag: Not Reported	Magnesium MGL: 16.4
Sodium Flag: Not Reported	Sodium MGL: 10.5
Potassium Flag: Not Reported	Potassium MGL: 1.25
Strontium Flag: Not Reported	Strontium MGL: 0.48
Carbonate MGL: 0.0	Bicarbonate MGL: 267.26
Sulfate Flag: Not Reported	Sulfate MGL: 27.6
Chloride Flag: Not Reported	Chloride MGL: 16.2
Fluoride Flag: Not Reported	Fluoride MGL: 0.17
Nitrate Flag: Not Reported	Nitrate MGL: 5.49
pH Flag: Not Reported	pH: 7.4
Total Dissolved Fluids: 297	Total Hardness: 256
Phenol Alkalinity: 0.0	Total Alkalinity: 219.0
SAR: 0.29	RSC: 0.0
Specific Conductance: Not Reported	Spec. Conductance Flag: 522
Percent Sodium: 8	
Collection Remark: Not Reported	
Reliability Remark: Sample in accordance with the TWDB's (A Field Manual for Ground-Water Sampling, 1990). Samples are collected when temperature, conductivity, and pH have stabilized. The sample was filtered and field tested for alkalinity. Samples are preserved as applicable, kept chilled, and delivered to the lab. Holding times are honored. Organic sub-samples are not filtered.	
Lab Name: Lower Colorado River Authority	

Well Casing Information::

Indicator	Diameter	Top of Interval	Bottom of Interval
Open Hole	Not Reported	574	1050

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Infrequent Constituent Information::

Sample Number:	1	Storet Number:	01045
Sample Flag:	<	Sample Date:	10/2/1973
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	10/2/1973
Constituent Value:	50.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	<	Sample Date:	4/30/1974
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	4/30/1974
Constituent Value:	50.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	Not Reported	Sample Date:	2/11/1977
Constituent Value:	30.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	2/11/1977
Constituent Value:	50.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	<	Sample Date:	10/27/1978
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	10/27/1978
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	Not Reported	Sample Date:	3/23/1979
Constituent Value:	30.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	3/23/1979
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	<	Sample Date:	7/17/1980
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	7/17/1980
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	Not Reported	Sample Date:	5/27/1983
Constituent Value:	60.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	5/27/1983
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	Not Reported	Sample Date:	3/8/1984
Constituent Value:	30.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	3/8/1984
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	00010
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	24	Confidence (+ or -):	Not Reported
Storet Code Description:	TEMPERATURE, WATER (CELCIUS)		
Constituent Name:	WATER	Unit of Measurement:	C
Sample Number:	1	Storet Number:	00090
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	130	Confidence (+ or -):	Not Reported
Storet Code Description:	OXIDATION REDUCTION POTENTIAL (ORP), MILLIVOLTS		
Constituent Name:	REDOX	Unit of Measurement:	MV
Sample Number:	1	Storet Number:	00608
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	0.1	Confidence (+ or -):	Not Reported
Storet Code Description:	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)		
Constituent Name:	NH3-N	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00623
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	0.14	Confidence (+ or -):	Not Reported
Storet Code Description:	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)		
Constituent Name:	KJELDL	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00631
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	1.24	Confidence (+ or -):	Not Reported
Storet Code Description:	NITRITE PLUS NITRATE, DISSOLVED (MG/L AS N)		
Constituent Name:	NO2+NO3	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00666
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	0.07	Confidence (+ or -):	Not Reported
Storet Code Description:	PHOSPHORUS, DISSOLVED (MG/L AS P)		
Constituent Name:	PHOS-DIS	Unit of Measurement:	MG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Storet Number:	01000
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	2	Confidence (+ or -):	Not Reported
Storet Code Description:	ARSENIC, DISSOLVED (UG/L AS AS)		
Constituent Name:	ARSENIC	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01005
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	38.6	Confidence (+ or -):	Not Reported
Storet Code Description:	BARIUM, DISSOLVED (UG/L AS BA)		
Constituent Name:	BARIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01010
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	BERYLLIUM, DISSOLVED (UG/L AS BE)		
Constituent Name:	BERYLLIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01020
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	45	Confidence (+ or -):	Not Reported
Storet Code Description:	BORON, DISSOLVED (UG/L AS B)		
Constituent Name:	BORON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01025
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	CADMIUM, DISSOLVED (UG/L AS CD)		
Constituent Name:	CADMIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01030
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	6.9	Confidence (+ or -):	Not Reported
Storet Code Description:	CHROMIUM, DISSOLVED (UG/L AS CR)		
Constituent Name:	CHROMIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01035
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	COBALT, DISSOLVED (UG/L AS CO)		
Constituent Name:	COBALT	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01040
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	3.3	Confidence (+ or -):	Not Reported
Storet Code Description:	COPPER, DISSOLVED (UG/L AS CU)		
Constituent Name:	COPPER	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01046
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	12	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, DISSOLVED (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01049
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	LEAD, DISSOLVED (UG/L AS PB)		
Constituent Name:	LEAD	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01056
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, DISSOLVED (UG/L AS MN)		
Constituent Name:	MANGANESE	Unit of Measurement:	UG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Storet Number:	01057
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	THALLIUM, DISSOLVED (UG/L AS TL)		
Constituent Name:	THALLIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01060
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	MOLYBDENUM, DISSOLVED, UG/L		
Constituent Name:	MOLY	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01065
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	7.1	Confidence (+ or -):	Not Reported
Storet Code Description:	NICKEL, DISSOLVED (UG/L AS NI)		
Constituent Name:	NICKEL	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01080
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	477	Confidence (+ or -):	Not Reported
Storet Code Description:	STRONTIUM, DISSOLVED (UG/L AS SR)		
Constituent Name:	STRONTIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01085
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	4.4	Confidence (+ or -):	Not Reported
Storet Code Description:	VANADIUM, DISSOLVED (UG/L AS V)		
Constituent Name:	VANADIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01090
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	5	Confidence (+ or -):	Not Reported
Storet Code Description:	ZINC, DISSOLVED (UG/L AS ZN)		
Constituent Name:	ZINC	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01095
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	ANTIMONY, DISSOLVED (UG/L AS SB)		
Constituent Name:	ANTIMONY	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01106
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	4	Confidence (+ or -):	Not Reported
Storet Code Description:	ALUMINUM, DISSOLVED (UG/L AS AL)		
Constituent Name:	ALUMINUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01130
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	4	Confidence (+ or -):	Not Reported
Storet Code Description:	LITHIUM, DISSOLVED (UG/L AS LI)		
Constituent Name:	LITHIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01145
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	4	Confidence (+ or -):	Not Reported
Storet Code Description:	SELENIUM, DISSOLVED (UG/L AS SE)		
Constituent Name:	SELENIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	39086
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	220	Confidence (+ or -):	Not Reported
Storet Code Description:	ALKALINITY, FIELD, DISSOLVED AS CaCO3		
Constituent Name:	ALKLNITY	Unit of Measurement:	MG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Storet Number:	71870
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	0.06	Confidence (+ or -):	Not Reported
Storet Code Description:	BROMIDE, DISSOLVED, (MG/L AS BR)		
Constituent Name:	BROMIDE	Unit of Measurement:	MG/L

Remarks:

Top of Edwards at 588 feet. Cemented from 574 ft. to surface.
 Tested at 7985 gpm with 5 ft draw- down when drilled.

**B8
 North
 1/2 - 1 Mile
 Higher**

TX WELLS S000637

GIS Id:	10000640	Pws Id:	0150018
Water Source:	G0150018AE	Owner:	BASIN #5
Hydrologic code:	12100301	Stream Segment:	Not Reported
Waterbody:	Not Reported	State wellno:	6837106
Welldepth:	986	Depth agency:	Water Well driller
Depth source:	Recorded on driller's log or state well report		
Aquifer:	218EBFZA		
Drilldate:	19630214	Welldata:	not reported
Elevatn:	725	Elevmeth:	Topographic Map Interpolation
V_datum:	1929 North American Datum	Aquifer method:	Well Schedule
Latitude:	292947	Longitude:	982917
Accuracy:	Fair - Surveyor had to use a vehicle odometer and/or pacing to locate the water source. Plotted location may not be within 100 ft. (30 m) of the actual location.		
Collecting Org:	Texas Natural Resource Conservation Commission		
Location Meth:	Map interpolation, via digital source, Method 1: Water source location was manually plotted on USGS 7.5-minute topographic quadrangle and subsequently digitized.		
Horiz datum:	North American Datum 1927 (NAD27)		
Mapscale:	7.5' X 7.5' (1:24,000)	Fips:	029
Quadnum:	2998-133	Collection date:	Not Reported
Latitude:	29.4964	Longitude:	98.4881
Initials:	JSA	Last changed:	07/10/1995 00:00:00
Remarks:	Not Reported	Status:	Operating (Active)
Description:	not reported	Elevation:	221

**C9
 East
 1/2 - 1 Mile
 Higher**

TX WELLS B6837123

St_well_nu:	6837123	Cnty_code:	Bexar
Basin:	SAN ANTONIO RIVER	Zone:	1
Reg_num:	11	Prev_well_:	Not Reported
Longitude:	982843	Latitude:	292917
Owner:	City of Alamo Heights Well 5		
Driller:	J. R. Johnson Drilling & Supplies		
Coord_src:	1		
Aqu_code:	EDWARDS AND ASSOCIATED LIMESTONES		
Aqu_id1:	11	Aqu_id2:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Aqu_id3:	Not Reported	Lsd_elev:	781
Meas_elev:	M	Use_cd_eco:	11200
Date_drill:	09161949	Well_typ:	W
Well_depth:	580	Src_depth:	Driller's log/Well report
Type_lift:	Turbine Pump	Type of Power:	Electric Motor
Horsepower:	100.00	Primary use:	Public Supply
Secondary use:	Not Reported	Tert use:	Not Reported
Avg Level:	N	Water quality:	N
Water Logs Available:	Drillers,Electric		
Other data avail:	Not Reported		
Date collected:	Not Reported	Reporting agency:	Not Reported
Well_sched:	Y	Const method:	not reported
Completion:	not reported	Case_mater:	not reported
Screen_mat:	not reported	Lith_log:	Not Reported
Int_lith_b:	Not Reported	Lith_date:	Not Reported

Remarks:

Cemented from 382 ft. to surface. Top of Edwards 330 ft. Pump set at 180 ft. Reported yield 1,000 gpm.

**D10
North
1/2 - 1 Mile
Higher**

TX WELLS B6837104

St_well_nu:	6837104	Cnty_code:	Bexar
Basin:	SAN ANTONIO RIVER	Zone:	1
Reg_num:	11	Prev_well_:	Not Reported
Longitude:	982914	Latitude:	292948
Owner:	San Antonio Water Sys. Basin Station #6		
Driller:	J. R. Johnson Drilling & Supplies		
Coord_src:	1		
Aqu_code:	EDWARDS AND ASSOCIATED LIMESTONES - (BALCONES FAULT ZONE AQUIFER)		
Aqu_id1:	11	Aqu_id2:	Not Reported
Aqu_id3:	Not Reported	Lsd_elev:	734
Meas_elev:	M	Use_cd_eco:	764200
Date_drill:	01--1963	Well_typ:	W
Well_depth:	995	Src_depth:	Driller's log/Well report
Type_lift:	Turbine Pump	Type of Power:	Electric Motor
Horsepower:	400.00	Primary use:	Public Supply
Secondary use:	Not Reported	Tert use:	Not Reported
Avg Level:	N	Water quality:	Y
Water Logs Available:	Drillers,Electric		
Other data avail:	Aquifer Test		
Date collected:	05231996	Reporting agency:	Other State Agencies
Well_sched:	Y	Const method:	not reported
Completion:	not reported	Case_mater:	not reported
Screen_mat:	not reported	Lith_log:	Not Reported
Int_lith_b:	Not Reported	Lith_date:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Water Quality Information::

Sample Number:	1	Sample Date:	6/18/1968
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	72.0
Magnesium Flag:	Not Reported	Magnesium MGL:	17.0
Sodium Flag:	Not Reported	Sodium MGL:	7
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	259.93
Sulfate Flag:	Not Reported	Sulfate MGL:	29.0
Chloride Flag:	Not Reported	Chloride MGL:	12.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.2
Nitrate Flag:	Not Reported	Nitrate MGL:	5.0
pH Flag:	Not Reported	pH:	7.5
Total Dissolved Fluids:	270	Total Hardness:	249
Phenol Alkalinity:	0.0	Total Alkalinity:	213.0
SAR:	0.19	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	531
Percent Sodium:	5		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		
Lab Name:	Texas Department of Health		

Sample Number:	1	Sample Date:	1/20/1969
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	71.0
Magnesium Flag:	Not Reported	Magnesium MGL:	19.0
Sodium Flag:	Not Reported	Sodium MGL:	6
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	255.05
Sulfate Flag:	Not Reported	Sulfate MGL:	34.0
Chloride Flag:	Not Reported	Chloride MGL:	13.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.3
Nitrate Flag:	Not Reported	Nitrate MGL:	5.6
pH Flag:	Not Reported	pH:	7.5
Total Dissolved Fluids:	274	Total Hardness:	255
Phenol Alkalinity:	0.0	Total Alkalinity:	209.0
SAR:	0.16	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	524
Percent Sodium:	4		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		
Lab Name:	Texas Department of Health		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number: 1	Sample Date: 11/3/1969
Temperature (C): 23	Sampled Aquifer Code: Not Reported
Top of sampled interval: Not Reported	Bottom of sampled interval: Not Reported
Balanced/unbal Analysis: B	Collection Agency: Not Reported
Silica Flag: Not Reported	Silica MGL: 12.0
Calcium Flag: Not Reported	Calcium MGL: 73.0
Magnesium Flag: Not Reported	Magnesium MGL: 17.0
Sodium Flag: c	Sodium MGL: 6.9
Potassium Flag: Not Reported	Potassium MGL: 1.3
Strontium Flag: Not Reported	Strontium MGL: Not Reported
Carbonate MGL: 0.0	Bicarbonate MGL: 260.07
Sulfate Flag: Not Reported	Sulfate MGL: 32.0
Chloride Flag: Not Reported	Chloride MGL: 12.0
Fluoride Flag: Not Reported	Fluoride MGL: 0.2
Nitrate Flag: Not Reported	Nitrate MGL: 5.3
pH Flag: Not Reported	pH: 7.7
Total Dissolved Fluids: 287	Total Hardness: 251
Phenol Alkalinity: 0.0	Total Alkalinity: 213.11
SAR: 0.19	RSC: 0.0
Specific Conductance: Not Reported	Spec. Conductance Flag: 497
Percent Sodium: 5	
Collection Remark: Not Reported	
Reliability Remark: Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored	
Lab Name: U.S. Geological Survey Lab	

Sample Number: 1	Sample Date: 7/15/1970
Temperature (C): 22	Sampled Aquifer Code: Not Reported
Top of sampled interval: Not Reported	Bottom of sampled interval: Not Reported
Balanced/unbal Analysis: B	Collection Agency: Not Reported
Silica Flag: Not Reported	Silica MGL: 12.0
Calcium Flag: Not Reported	Calcium MGL: 70.0
Magnesium Flag: Not Reported	Magnesium MGL: 17.0
Sodium Flag: Not Reported	Sodium MGL: 7.3
Potassium Flag: Not Reported	Potassium MGL: 1.4
Strontium Flag: Not Reported	Strontium MGL: 0.44
Carbonate MGL: 0.0	Bicarbonate MGL: 258.08
Sulfate Flag: Not Reported	Sulfate MGL: 31.0
Chloride Flag: Not Reported	Chloride MGL: 12.0
Fluoride Flag: Not Reported	Fluoride MGL: 0.3
Nitrate Flag: Not Reported	Nitrate MGL: 4.3
pH Flag: Not Reported	pH: 7.2
Total Dissolved Fluids: 282	Total Hardness: 244
Phenol Alkalinity: 0.0	Total Alkalinity: 211.48
SAR: 0.19	RSC: 0.0
Specific Conductance: Not Reported	Spec. Conductance Flag: 457
Percent Sodium: 6	
Collection Remark: Not Reported	
Reliability Remark: Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored	
Lab Name: U.S. Geological Survey Lab	

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Sample Date:	9/14/1971
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	73.0
Magnesium Flag:	Not Reported	Magnesium MGL:	18.0
Sodium Flag:	Not Reported	Sodium MGL:	7
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	256.27
Sulfate Flag:	Not Reported	Sulfate MGL:	31.0
Chloride Flag:	Not Reported	Chloride MGL:	12.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.2
Nitrate Flag:	Not Reported	Nitrate MGL:	5.5
pH Flag:	Not Reported	pH:	7.4
Total Dissolved Fluids:	272	Total Hardness:	256
Phenol Alkalinity:	0.0	Total Alkalinity:	210.0
SAR:	0.19	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	510
Percent Sodium:	5		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		
Lab Name:	Texas Department of Health		

Sample Number:	1	Sample Date:	8/8/1973
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	74.0
Magnesium Flag:	Not Reported	Magnesium MGL:	17.0
Sodium Flag:	Not Reported	Sodium MGL:	8
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	259.93
Sulfate Flag:	Not Reported	Sulfate MGL:	33.0
Chloride Flag:	Not Reported	Chloride MGL:	14.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.3
Nitrate Flag:	Not Reported	Nitrate MGL:	7.0
pH Flag:	Not Reported	pH:	7.7
Total Dissolved Fluids:	281	Total Hardness:	254
Phenol Alkalinity:	0.0	Total Alkalinity:	213.0
SAR:	0.22	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	552
Percent Sodium:	6		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		
Lab Name:	Texas Department of Health		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Sample Date:	2/2/1978
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	76.0
Magnesium Flag:	Not Reported	Magnesium MGL:	17.0
Sodium Flag:	Not Reported	Sodium MGL:	8
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	266.0
Sulfate Flag:	Not Reported	Sulfate MGL:	32.0
Chloride Flag:	Not Reported	Chloride MGL:	15.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.2
Nitrate Flag:	Not Reported	Nitrate MGL:	7.0
pH Flag:	Not Reported	pH:	7.4
Total Dissolved Fluids:	285	Total Hardness:	259
Phenol Alkalinity:	0.0	Total Alkalinity:	217.97
SAR:	0.22	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	560
Percent Sodium:	6		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		
Lab Name:	Texas Department of Health		

Sample Number:	1	Sample Date:	8/10/1978 1230
Temperature (C):	24	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	Not Reported
Silica Flag:	Not Reported	Silica MGL:	12.0
Calcium Flag:	Not Reported	Calcium MGL:	71.0
Magnesium Flag:	Not Reported	Magnesium MGL:	17.0
Sodium Flag:	Not Reported	Sodium MGL:	8.5
Potassium Flag:	Not Reported	Potassium MGL:	1.3
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	259.99
Sulfate Flag:	Not Reported	Sulfate MGL:	32.0
Chloride Flag:	Not Reported	Chloride MGL:	12.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.2
Nitrate Flag:	Not Reported	Nitrate MGL:	7.97
pH Flag:	Not Reported	pH:	6.9
Total Dissolved Fluids:	289	Total Hardness:	246
Phenol Alkalinity:	0.0	Total Alkalinity:	213.05
SAR:	0.24	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	518
Percent Sodium:	6		
Collection Remark:	Not Reported		
Reliability Remark:	Sample in accordance with the TWDB's (A Field Manual for Ground-Water Sampling, 1990). Samples are collected when temperature, conductivity, and pH have stabilized. The sample was filtered and field tested for alkalinity. Samples are preserved as applicable, kept chilled, and delivered to the lab. Holding times are honored. Organic sub-samples are not filtered.		
Lab Name:	U.S. Geological Survey Lab		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Sample Date:	5/14/1980
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	76.0
Magnesium Flag:	Not Reported	Magnesium MGL:	15.0
Sodium Flag:	Not Reported	Sodium MGL:	9
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	264.82
Sulfate Flag:	Not Reported	Sulfate MGL:	32.0
Chloride Flag:	Not Reported	Chloride MGL:	15.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.2
Nitrate Flag:	Not Reported	Nitrate MGL:	7.4
pH Flag:	Not Reported	pH:	7.7
Total Dissolved Fluids:	284	Total Hardness:	251
Phenol Alkalinity:	0.0	Total Alkalinity:	217.0
SAR:	0.25	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	560
Percent Sodium:	7		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		
Lab Name:	Texas Department of Health		

Sample Number:	1	Sample Date:	9/2/1981
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	67.0
Magnesium Flag:	Not Reported	Magnesium MGL:	15.0
Sodium Flag:	Not Reported	Sodium MGL:	8
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	239.19
Sulfate Flag:	Not Reported	Sulfate MGL:	28.0
Chloride Flag:	Not Reported	Chloride MGL:	14.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.2
Nitrate Flag:	Not Reported	Nitrate MGL:	6.55
pH Flag:	Not Reported	pH:	8.2
Total Dissolved Fluids:	256	Total Hardness:	228
Phenol Alkalinity:	0.0	Total Alkalinity:	196.0
SAR:	0.23	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	495
Percent Sodium:	7		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		
Lab Name:	Texas Department of Health		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number: 1	Sample Date: 5/6/1982
Temperature (C): Not Reported	Sampled Aquifer Code: Not Reported
Top of sampled interval: Not Reported	Bottom of sampled interval: Not Reported
Balanced/unbal Analysis: B	Collection Agency: RAW SUPPLY
Silica Flag: Not Reported	Silica MGL: Not Reported
Calcium Flag: Not Reported	Calcium MGL: 76.0
Magnesium Flag: Not Reported	Magnesium MGL: 14.0
Sodium Flag: Not Reported	Sodium MGL: 9
Potassium Flag: Not Reported	Potassium MGL: Not Reported
Strontium Flag: Not Reported	Strontium MGL: Not Reported
Carbonate MGL: 0.0	Bicarbonate MGL: 263.59
Sulfate Flag: Not Reported	Sulfate MGL: 29.0
Chloride Flag: Not Reported	Chloride MGL: 15.0
Fluoride Flag: Not Reported	Fluoride MGL: 0.2
Nitrate Flag: Not Reported	Nitrate MGL: 7.13
pH Flag: Not Reported	pH: 7.7
Total Dissolved Fluids: 279	Total Hardness: 247
Phenol Alkalinity: 0.0	Total Alkalinity: 216.0
SAR: 0.25	RSC: 0.0
Specific Conductance: Not Reported	Spec. Conductance Flag: 539
Percent Sodium: 7	
Collection Remark: raw supply	
Reliability Remark: Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored	
Lab Name: Texas Department of Health	

Sample Number: 1	Sample Date: 5/27/1983
Temperature (C): Not Reported	Sampled Aquifer Code: Not Reported
Top of sampled interval: Not Reported	Bottom of sampled interval: Not Reported
Balanced/unbal Analysis: B	Collection Agency: RAW SUPPLY
Silica Flag: Not Reported	Silica MGL: Not Reported
Calcium Flag: Not Reported	Calcium MGL: 71.0
Magnesium Flag: Not Reported	Magnesium MGL: 18.0
Sodium Flag: Not Reported	Sodium MGL: 9
Potassium Flag: Not Reported	Potassium MGL: Not Reported
Strontium Flag: Not Reported	Strontium MGL: Not Reported
Carbonate MGL: 0.0	Bicarbonate MGL: 261.15
Sulfate Flag: Not Reported	Sulfate MGL: 27.0
Chloride Flag: Not Reported	Chloride MGL: 15.0
Fluoride Flag: Not Reported	Fluoride MGL: 0.2
Nitrate Flag: Not Reported	Nitrate MGL: 7.13
pH Flag: Not Reported	pH: 7.9
Total Dissolved Fluids: 275	Total Hardness: 251
Phenol Alkalinity: 0.0	Total Alkalinity: 214.0
SAR: 0.25	RSC: 0.0
Specific Conductance: Not Reported	Spec. Conductance Flag: 536
Percent Sodium: 7	
Collection Remark: raw supply	
Reliability Remark: Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored	
Lab Name: Texas Department of Health	

Well Casing Information::

Indicator	Diameter	Top of Interval	Bottom of Interval
Open Hole	Not Reported	570	955

Infrequent Constituent Information::

Sample Number: 1	Storet Number: 07017
Sample Flag: Not Reported	Sample Date: 5/15/1968
Constituent Value: 4.4	Confidence (+ or -): 0.3

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Storet Code Description: TRITIUM, TOTAL (TRITIUM UNITS)			
Constituent Name:	TRITIUM	Unit of Measurement:	TU
Sample Number:	1	Storet Number:	01045
Sample Flag:	<	Sample Date:	6/18/1968
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description: IRON, TOTAL (UG/L AS FE)			
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	6/18/1968
Constituent Value:	50.	Confidence (+ or -):	Not Reported
Storet Code Description: MANGANESE, TOTAL (UG/L AS MN)			
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	<	Sample Date:	1/20/1969
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description: IRON, TOTAL (UG/L AS FE)			
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	1/20/1969
Constituent Value:	50.	Confidence (+ or -):	Not Reported
Storet Code Description: MANGANESE, TOTAL (UG/L AS MN)			
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01042
Sample Flag:	Not Reported	Sample Date:	7/15/1970
Constituent Value:	10.	Confidence (+ or -):	Not Reported
Storet Code Description: COPPER, TOTAL (UG/L AS CU)			
Constituent Name:	COPPER	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01092
Sample Flag:	Not Reported	Sample Date:	7/15/1970
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description: ZINC, TOTAL (UG/L AS ZN)			
Constituent Name:	ZINC	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	71886
Sample Flag:	Not Reported	Sample Date:	7/15/1970
Constituent Value:	.03	Confidence (+ or -):	Not Reported
Storet Code Description: PHOSPHORUS, TOTAL AS PO4 (MG/L)			
Constituent Name:	TOTAL P	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	<	Sample Date:	9/14/1971
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description: IRON, TOTAL (UG/L AS FE)			
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	9/14/1971
Constituent Value:	50.	Confidence (+ or -):	Not Reported
Storet Code Description: MANGANESE, TOTAL (UG/L AS MN)			
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	<	Sample Date:	8/8/1973
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description: IRON, TOTAL (UG/L AS FE)			
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	8/8/1973
Constituent Value:	50.	Confidence (+ or -):	Not Reported
Storet Code Description: MANGANESE, TOTAL (UG/L AS MN)			
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Storet Number:	01045
Sample Flag:	<	Sample Date:	2/2/1978
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	2/2/1978
Constituent Value:	50.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	00600
Sample Flag:	Not Reported	Sample Date:	8/10/1978
Constituent Value:	1.8	Confidence (+ or -):	Not Reported
Storet Code Description:	NITROGEN, TOTAL (MG/L AS N)		
Constituent Name:	TOTAL N	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00605
Sample Flag:	Not Reported	Sample Date:	8/10/1978
Constituent Value:	0.05	Confidence (+ or -):	Not Reported
Storet Code Description:	NITROGEN, ORGANIC, TOTAL (MG/L AS N)		
Constituent Name:	ORG N	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00610
Sample Flag:	Not Reported	Sample Date:	8/10/1978
Constituent Value:	0.00	Confidence (+ or -):	Not Reported
Storet Code Description:	NITROGEN, AMMONIA, TOTAL (MG/L AS N)		
Constituent Name:	NH3-N	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00615
Sample Flag:	Not Reported	Sample Date:	8/10/1978
Constituent Value:	0.00	Confidence (+ or -):	Not Reported
Storet Code Description:	NITRITE NITROGEN, TOTAL (MG/L AS N)		
Constituent Name:	NO2-N	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00620
Sample Flag:	Not Reported	Sample Date:	8/10/1978
Constituent Value:	1.7	Confidence (+ or -):	Not Reported
Storet Code Description:	NITRATE NITROGEN, TOTAL (MG/L AS N)		
Constituent Name:	NITRATE	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00625
Sample Flag:	Not Reported	Sample Date:	8/10/1978
Constituent Value:	0.05	Confidence (+ or -):	Not Reported
Storet Code Description:	NITROGEN, KJELDAHL, TOTAL (MG/L AS N)		
Constituent Name:	TOT KJEL	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00630
Sample Flag:	Not Reported	Sample Date:	8/10/1978
Constituent Value:	1.7	Confidence (+ or -):	Not Reported
Storet Code Description:	NITRITE PLUS NITRATE, TOTAL (MG/L AS N)		
Constituent Name:	NO2&NO3	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00665
Sample Flag:	Not Reported	Sample Date:	8/10/1978
Constituent Value:	0.01	Confidence (+ or -):	Not Reported
Storet Code Description:	PHOSPHORUS, TOTAL (MG/L AS P)		
Constituent Name:	PHOS-TOT	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00681
Sample Flag:	Not Reported	Sample Date:	8/10/1978
Constituent Value:	0.5	Confidence (+ or -):	Not Reported
Storet Code Description:	CARBON, DISSOLVED ORGANIC (MG/L AS C)		
Constituent Name:	CARBON	Unit of Measurement:	MG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Storet Number:	00902
Sample Flag:	Not Reported	Sample Date:	8/10/1978
Constituent Value:	34.	Confidence (+ or -):	Not Reported
Storet Code Description:	HARDNESS, NON-CARBONATE (MG/L AS CaCO3)		
Constituent Name:	NC HARD	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	01000
Sample Flag:	Not Reported	Sample Date:	8/10/1978
Constituent Value:	1.	Confidence (+ or -):	Not Reported
Storet Code Description:	ARSENIC, DISSOLVED (UG/L AS AS)		
Constituent Name:	ARSENIC	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01005
Sample Flag:	Not Reported	Sample Date:	8/10/1978
Constituent Value:	40.	Confidence (+ or -):	Not Reported
Storet Code Description:	BARIUM, DISSOLVED (UG/L AS BA)		
Constituent Name:	BARIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01025
Sample Flag:	<	Sample Date:	8/10/1978
Constituent Value:	1.	Confidence (+ or -):	Not Reported
Storet Code Description:	CADMIUM, DISSOLVED (UG/L AS CD)		
Constituent Name:	CADMIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01040
Sample Flag:	Not Reported	Sample Date:	8/10/1978
Constituent Value:	1.	Confidence (+ or -):	Not Reported
Storet Code Description:	COPPER, DISSOLVED (UG/L AS CU)		
Constituent Name:	COPPER	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01046
Sample Flag:	<	Sample Date:	8/10/1978
Constituent Value:	10.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, DISSOLVED (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01049
Sample Flag:	<	Sample Date:	8/10/1978
Constituent Value:	1.	Confidence (+ or -):	Not Reported
Storet Code Description:	LEAD, DISSOLVED (UG/L AS PB)		
Constituent Name:	LEAD	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01056
Sample Flag:	<	Sample Date:	8/10/1978
Constituent Value:	1.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, DISSOLVED (UG/L AS MN)		
Constituent Name:	MANGANESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01075
Sample Flag:	<	Sample Date:	8/10/1978
Constituent Value:	1.	Confidence (+ or -):	Not Reported
Storet Code Description:	SILVER, DISSOLVED (UG/L AS AG)		
Constituent Name:	SILVER	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01090
Sample Flag:	<	Sample Date:	8/10/1978
Constituent Value:	3.	Confidence (+ or -):	Not Reported
Storet Code Description:	ZINC, DISSOLVED (UG/L AS ZN)		
Constituent Name:	ZINC	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01145
Sample Flag:	<	Sample Date:	8/10/1978
Constituent Value:	1.	Confidence (+ or -):	Not Reported
Storet Code Description:	SELENIUM, DISSOLVED (UG/L AS SE)		
Constituent Name:	SELENIUM	Unit of Measurement:	UG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Storet Number:	71870
Sample Flag:	Not Reported	Sample Date:	8/10/1978
Constituent Value:	0.1	Confidence (+ or -):	Not Reported
Storet Code Description:	BROMIDE, DISSOLVED, (MG/L AS BR)		
Constituent Name:	BROMIDE	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	71890
Sample Flag:	Not Reported	Sample Date:	8/10/1978
Constituent Value:	0.1	Confidence (+ or -):	Not Reported
Storet Code Description:	MERCURY, DISSOLVED (UG/L AS HG)		
Constituent Name:	MERCURY	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	Not Reported	Sample Date:	5/14/1980
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	5/14/1980
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	<	Sample Date:	9/2/1981
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	9/2/1981
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	Not Reported	Sample Date:	5/6/1982
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	5/6/1982
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	Not Reported	Sample Date:	5/27/1983
Constituent Value:	60.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	5/27/1983
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L

Remarks:

Top of Edwards at 575 feet. Cemented from 570 ft. to surface.
 Tested at 7046 gpm with 5 ft draw- down when drilled.

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

11
SSW
1/2 - 1 Mile
Higher

TX WELLS B6837107

St_well_nu:	6837107	Cnty_code:	Bexar
Basin:	SAN ANTONIO RIVER	Zone:	1
Reg_num:	11	Prev_well_:	Not Reported
Longitude:	982932	Latitude:	292849
Owner:	San Antonio Water Sys. Olmos Park		
Driller:	J. R. Johnson Drilling & Supplies		
Coord_src:	1		
Aqu_code:	EDWARDS AND ASSOCIATED LIMESTONES - (BALCONES FAULT ZONE AQUIFER)		
Aqu_id1:	11	Aqu_id2:	Not Reported
Aqu_id3:	Not Reported	Lsd_elev:	760
Meas_elev:	M	Use_cd_eco:	764200
Date_drill:	06011968	Well_typ:	W
Well_depth:	816	Src_depth:	Driller's log/Well report
Type_lift:	None	Type of Power:	Not Reported
Horsepower:	Not Reported	Primary use:	Unused
Secondary use:	Not Reported	Tert use:	Not Reported
Avg Level:	M	Water quality:	N
Water Logs Available:	Drillers,Electric		
Other data avail:	Not Reported		
Date collected:	Not Reported	Reporting agency:	Not Reported
Well_sched:	Y	Const method:	not reported
Completion:	not reported	Case_mater:	not reported
Screen_mat:	not reported	Lith_log:	Not Reported
Int_lith_b:	Not Reported	Lith_date:	Not Reported

Water Level Information - 2x Month::

Measurement Number:	01	Measurement Date:	6/1/1968
Depth from land surface:	-87.0	Visit Mark:	Publishable - water-level is indicative of aquifer's piezometric surface
Measurement Method:	Not Reported	Measuring Agency:	Not Reported
Remark:	MEASUREMENT GOOD. NO UNUSUAL CONDITIONS NOTED AT OR NEAR WELL SITE		

Well Casing Information::

Indicator	Diameter	Top of Interval	Bottom of Interval
Open Hole	Not Reported	670	816

Remarks:

Capped. Cemented to top of Edwards at 670 ft. Tested at 4005 gpm with 2 ft drawdown pumping 8 hours on 6-1-68.

12
NNW
1/2 - 1 Mile
Higher

TX WELLS B6837116

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

St_well_nu:	6837116	Cnty_code:	Bexar
Basin:	SAN ANTONIO RIVER	Zone:	1
Reg_num:	11	Prev_well_:	Not Reported
Longitude:	982931	Latitude:	292947
Owner:	San Antonio Water Sys. Basin Station #4		
Driller:	J. R. Johnson Drilling & Supplies		
Coord_src:	1		
Aqu_code:	EDWARDS AND ASSOCIATED LIMESTONES - (BALCONES FAULT ZONE AQUIFER)		
Aqu_id1:	11	Aqu_id2:	Not Reported
Aqu_id3:	Not Reported	Lsd_elev:	728
Meas_elev:	M	Use_cd_eco:	764200
Date_drill:	08221951	Well_typ:	W
Well_depth:	700	Src_depth:	Driller's log/Well report
Type_lift:	Turbine Pump	Type of Power:	Electric Motor
Horsepower:	200.00	Primary use:	Public Supply
Secondary use:	Not Reported	Tert use:	Not Reported
Avg Level:	M	Water quality:	Y
Water Logs Available:	Drillers		
Other data avail:	Not Reported		
Date collected:	05231996	Reporting agency:	Other State Agencies
Well_sched:	Y	Const method:	not reported
Completion:	not reported	Case_mater:	not reported
Screen_mat:	not reported	Lith_log:	Not Reported
Int_lith_b:	Not Reported	Lith_date:	Not Reported

Water Quality Information::

Sample Number:	1	Sample Date:	7/11/1966
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	72.0
Magnesium Flag:	Not Reported	Magnesium MGL:	18.0
Sodium Flag:	Not Reported	Sodium MGL:	6
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	257.49
Sulfate Flag:	Not Reported	Sulfate MGL:	33.0
Chloride Flag:	Not Reported	Chloride MGL:	13.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.3
Nitrate Flag:	Not Reported	Nitrate MGL:	5.0
pH Flag:	Not Reported	pH:	7.5
Total Dissolved Fluids:	273	Total Hardness:	253
Phenol Alkalinity:	0.0	Total Alkalinity:	211.0
SAR:	0.16	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	540
Percent Sodium:	4		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		
Lab Name:	Texas Department of Health		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number: 1	Sample Date: 8/15/1980
Temperature (C): Not Reported	Sampled Aquifer Code: Not Reported
Top of sampled interval: Not Reported	Bottom of sampled interval: Not Reported
Balanced/unbal Analysis: B	Collection Agency: RAW SUPPLY
Silica Flag: Not Reported	Silica MGL: Not Reported
Calcium Flag: Not Reported	Calcium MGL: 76.0
Magnesium Flag: Not Reported	Magnesium MGL: 14.0
Sodium Flag: Not Reported	Sodium MGL: 9
Potassium Flag: Not Reported	Potassium MGL: Not Reported
Strontium Flag: Not Reported	Strontium MGL: Not Reported
Carbonate MGL: 0.0	Bicarbonate MGL: 251.39
Sulfate Flag: Not Reported	Sulfate MGL: 33.0
Chloride Flag: Not Reported	Chloride MGL: 15.0
Fluoride Flag: Not Reported	Fluoride MGL: 0.2
Nitrate Flag: Not Reported	Nitrate MGL: 7.4
pH Flag: Not Reported	pH: 8.1
Total Dissolved Fluids: 278	Total Hardness: 247
Phenol Alkalinity: 0.0	Total Alkalinity: 206.0
SAR: 0.25	RSC: 0.0
Specific Conductance: Not Reported	Spec. Conductance Flag: 556
Percent Sodium: 7	
Collection Remark: raw supply	
Reliability Remark: Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored	
Lab Name: Texas Department of Health	

Sample Number: 1	Sample Date: 10/1/1981
Temperature (C): Not Reported	Sampled Aquifer Code: Not Reported
Top of sampled interval: Not Reported	Bottom of sampled interval: Not Reported
Balanced/unbal Analysis: B	Collection Agency: RAW SUPPLY
Silica Flag: Not Reported	Silica MGL: Not Reported
Calcium Flag: Not Reported	Calcium MGL: 79.0
Magnesium Flag: Not Reported	Magnesium MGL: 13.0
Sodium Flag: Not Reported	Sodium MGL: 9
Potassium Flag: Not Reported	Potassium MGL: Not Reported
Strontium Flag: Not Reported	Strontium MGL: Not Reported
Carbonate MGL: 0.0	Bicarbonate MGL: 269.7
Sulfate Flag: Not Reported	Sulfate MGL: 28.0
Chloride Flag: Not Reported	Chloride MGL: 16.0
Fluoride Flag: Not Reported	Fluoride MGL: 0.2
Nitrate Flag: Not Reported	Nitrate MGL: 7.36
pH Flag: Not Reported	pH: 8.3
Total Dissolved Fluids: 285	Total Hardness: 250
Phenol Alkalinity: 0.0	Total Alkalinity: 221.0
SAR: 0.25	RSC: 0.0
Specific Conductance: Not Reported	Spec. Conductance Flag: 568
Percent Sodium: 7	
Collection Remark: raw supply	
Reliability Remark: Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored	
Lab Name: Texas Department of Health	

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number: 1	Sample Date: 3/24/1982
Temperature (C): Not Reported	Sampled Aquifer Code: Not Reported
Top of sampled interval: Not Reported	Bottom of sampled interval: Not Reported
Balanced/unbal Analysis: B	Collection Agency: RAW SUPPLY
Silica Flag: Not Reported	Silica MGL: Not Reported
Calcium Flag: Not Reported	Calcium MGL: 78.0
Magnesium Flag: Not Reported	Magnesium MGL: 17.0
Sodium Flag: Not Reported	Sodium MGL: 9
Potassium Flag: Not Reported	Potassium MGL: Not Reported
Strontium Flag: Not Reported	Strontium MGL: Not Reported
Carbonate MGL: 0.0	Bicarbonate MGL: 267.26
Sulfate Flag: Not Reported	Sulfate MGL: 31.0
Chloride Flag: Not Reported	Chloride MGL: 15.0
Fluoride Flag: Not Reported	Fluoride MGL: 0.2
Nitrate Flag: Not Reported	Nitrate MGL: 7.18
pH Flag: Not Reported	pH: 7.8
Total Dissolved Fluids: 288	Total Hardness: 264
Phenol Alkalinity: 0.0	Total Alkalinity: 219.0
SAR: 0.24	RSC: 0.0
Specific Conductance: Not Reported	Spec. Conductance Flag: 556
Percent Sodium: 6	
Collection Remark: raw supply	
Reliability Remark: Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored	

Lab Name: Texas Department of Health

Sample Number: 1	Sample Date: 5/27/1983
Temperature (C): Not Reported	Sampled Aquifer Code: Not Reported
Top of sampled interval: Not Reported	Bottom of sampled interval: Not Reported
Balanced/unbal Analysis: B	Collection Agency: RAW SUPPLY
Silica Flag: Not Reported	Silica MGL: Not Reported
Calcium Flag: Not Reported	Calcium MGL: 72.0
Magnesium Flag: Not Reported	Magnesium MGL: 17.0
Sodium Flag: Not Reported	Sodium MGL: 9
Potassium Flag: Not Reported	Potassium MGL: Not Reported
Strontium Flag: Not Reported	Strontium MGL: Not Reported
Carbonate MGL: 0.0	Bicarbonate MGL: 262.37
Sulfate Flag: Not Reported	Sulfate MGL: 28.0
Chloride Flag: Not Reported	Chloride MGL: 16.0
Fluoride Flag: Not Reported	Fluoride MGL: 0.2
Nitrate Flag: Not Reported	Nitrate MGL: 7.13
pH Flag: Not Reported	pH: 7.9
Total Dissolved Fluids: 278	Total Hardness: 249
Phenol Alkalinity: 0.0	Total Alkalinity: 215.0
SAR: 0.25	RSC: 0.0
Specific Conductance: Not Reported	Spec. Conductance Flag: 544
Percent Sodium: 7	
Collection Remark: raw supply	
Reliability Remark: Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored	

Lab Name: Texas Department of Health

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number: 1	Sample Date: 4/19/1984
Temperature (C): Not Reported	Sampled Aquifer Code: Not Reported
Top of sampled interval: Not Reported	Bottom of sampled interval: Not Reported
Balanced/unbal Analysis: B	Collection Agency: RAW SUPPLY
Silica Flag: Not Reported	Silica MGL: Not Reported
Calcium Flag: Not Reported	Calcium MGL: 76.0
Magnesium Flag: Not Reported	Magnesium MGL: 15.0
Sodium Flag: Not Reported	Sodium MGL: 9
Potassium Flag: Not Reported	Potassium MGL: Not Reported
Strontium Flag: Not Reported	Strontium MGL: Not Reported
Carbonate MGL: 0.0	Bicarbonate MGL: 264.82
Sulfate Flag: Not Reported	Sulfate MGL: 24.0
Chloride Flag: Not Reported	Chloride MGL: 15.0
Fluoride Flag: Not Reported	Fluoride MGL: 0.2
Nitrate Flag: Not Reported	Nitrate MGL: 7.35
pH Flag: Not Reported	pH: 7.7
Total Dissolved Fluids: 276	Total Hardness: 251
Phenol Alkalinity: 0.0	Total Alkalinity: 217.0
SAR: 0.25	RSC: 0.0
Specific Conductance: Not Reported	Spec. Conductance Flag: 556
Percent Sodium: 7	
Collection Remark: raw supply	
Reliability Remark: Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored	
Lab Name: Texas Department of Health	

Water Level Information - 2x Month::

Measurement Number: 01	Measurement Date: 8/20/1951
Depth from land surface: -79.5	
Visit Mark: Publishable - water-level is indicative of aquifer's piezometric surface	
Measurement Method: Not Reported	Measuring Agency: Not Reported
Remark: MEASUREMENT GOOD. NO UNUSUAL CONDITIONS NOTED AT OR NEAR WELL SITE	

Well Casing Information::

Indicator	Diameter	Top of Interval	Bottom of Interval
Open Hole	Not Reported	516	700

Infrequent Constituent Information::

Sample Number: 1	Storet Number: 01045
Sample Flag: <	Sample Date: 7/11/1966
Constituent Value: 20.	Confidence (+ or -): Not Reported
Storet Code Description: IRON, TOTAL (UG/L AS FE)	
Constituent Name: IRON	Unit of Measurement: UG/L
Sample Number: 1	Storet Number: 01055
Sample Flag: <	Sample Date: 7/11/1966
Constituent Value: 50.	Confidence (+ or -): Not Reported
Storet Code Description: MANGANESE, TOTAL (UG/L AS MN)	
Constituent Name: MANGNESE	Unit of Measurement: UG/L
Sample Number: 1	Storet Number: 01045
Sample Flag: Not Reported	Sample Date: 8/15/1980
Constituent Value: 30.	Confidence (+ or -): Not Reported
Storet Code Description: IRON, TOTAL (UG/L AS FE)	
Constituent Name: IRON	Unit of Measurement: UG/L
Sample Number: 1	Storet Number: 01055
Sample Flag: <	Sample Date: 8/15/1980
Constituent Value: 20.	Confidence (+ or -): Not Reported
Storet Code Description: MANGANESE, TOTAL (UG/L AS MN)	
Constituent Name: MANGNESE	Unit of Measurement: UG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number: 1	Storet Number: 01045
Sample Flag: Not Reported	Sample Date: 10/1/1981
Constituent Value: 30.	Confidence (+ or -): Not Reported
Storet Code Description: IRON, TOTAL (UG/L AS FE)	
Constituent Name: IRON	Unit of Measurement: UG/L
Sample Number: 1	Storet Number: 01055
Sample Flag: <	Sample Date: 10/1/1981
Constituent Value: 20.	Confidence (+ or -): Not Reported
Storet Code Description: MANGANESE, TOTAL (UG/L AS MN)	
Constituent Name: MANGNESE	Unit of Measurement: UG/L
Sample Number: 1	Storet Number: 01045
Sample Flag: Not Reported	Sample Date: 3/24/1982
Constituent Value: 40.	Confidence (+ or -): Not Reported
Storet Code Description: IRON, TOTAL (UG/L AS FE)	
Constituent Name: IRON	Unit of Measurement: UG/L
Sample Number: 1	Storet Number: 01055
Sample Flag: <	Sample Date: 3/24/1982
Constituent Value: 20.	Confidence (+ or -): Not Reported
Storet Code Description: MANGANESE, TOTAL (UG/L AS MN)	
Constituent Name: MANGNESE	Unit of Measurement: UG/L
Sample Number: 1	Storet Number: 01045
Sample Flag: Not Reported	Sample Date: 5/27/1983
Constituent Value: 60.	Confidence (+ or -): Not Reported
Storet Code Description: IRON, TOTAL (UG/L AS FE)	
Constituent Name: IRON	Unit of Measurement: UG/L
Sample Number: 1	Storet Number: 01055
Sample Flag: <	Sample Date: 5/27/1983
Constituent Value: 20.	Confidence (+ or -): Not Reported
Storet Code Description: MANGANESE, TOTAL (UG/L AS MN)	
Constituent Name: MANGNESE	Unit of Measurement: UG/L
Sample Number: 1	Storet Number: 01045
Sample Flag: Not Reported	Sample Date: 4/19/1984
Constituent Value: 50.	Confidence (+ or -): Not Reported
Storet Code Description: IRON, TOTAL (UG/L AS FE)	
Constituent Name: IRON	Unit of Measurement: UG/L
Sample Number: 1	Storet Number: 01055
Sample Flag: <	Sample Date: 4/19/1984
Constituent Value: 20.	Confidence (+ or -): Not Reported
Storet Code Description: MANGANESE, TOTAL (UG/L AS MN)	
Constituent Name: MANGNESE	Unit of Measurement: UG/L

Remarks:

Well 293 in Texas Board of Water Engineers Bulletin 5608. Cemented to 516 ft. Tested at 4166 gpm with 118 ft drawdown when drilled.

**C13
East
1/2 - 1 Mile
Higher**

TX WELLS S000735

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

GIS Id:	10000738	Pws Id:	0150039
Water Source:	G0150039D	Owner:	5-TX MIL INST
Hydrologic code:	12100301	Stream Segment:	Not Reported
Waterbody:	Not Reported	State wellno:	6837123
Welldepth:	580	Depth agency:	Water Well driller
Depth source:	Recorded on driller's log or state well report		
Aquifer:	218EDRDA		
Drilldate:	19490916	Welldata:	not reported
Elevatn:	781	Elevmeth:	Topographic Map Interpolation
V_datum:	1929 North American Datum	Aquifer method:	Well Schedule
Latitude:	292916	Longitude:	982840
Accuracy:	Excellent - Plotted location matches an existing symbol printed on the map or value obtained from a global positioning system (GPS) receiver. Positional accuracy reflects the accuracy standards for the map.		
Collecting Org:	Texas Natural Resource Conservation Commission		
Location Meth:	Map interpolation, via digital source, Method 1: Water source location was manually plotted on USGS 7.5-minute topographic quadrangle and subsequently digitized.		
Horiz datum:	North American Datum 1927 (NAD27)		
Mapscale:	7.5' X 7.5' (1:24,000)	Fips:	029
Quadnum:	2998-133	Collection date:	Not Reported
Latitude:	29.4878	Longitude:	98.4778
Initials:	ADM	Last changed:	10/18/1995 00:00:00
Remarks:	Not Reported	Status:	Operating (Active)
Description:	not reported	Elevation:	238

**D14
North
1/2 - 1 Mile
Higher**

TX WELLS S000638

GIS Id:	10000641	Pws Id:	0150018
Water Source:	G0150018AF	Owner:	BASIN #4
Hydrologic code:	12100301	Stream Segment:	Not Reported
Waterbody:	Not Reported	State wellno:	6837116
Welldepth:	700	Depth agency:	Water Well driller
Depth source:	Recorded on driller's log or state well report		
Aquifer:	218EBFZA		
Drilldate:	19510822	Welldata:	not reported
Elevatn:	728	Elevmeth:	Topographic Map Interpolation
V_datum:	1929 North American Datum	Aquifer method:	Well Schedule
Latitude:	292949	Longitude:	982916
Accuracy:	Fair - Surveyor had to use a vehicle odometer and/or pacing to locate the water source. Plotted location may not be within 100 ft. (30 m) of the actual location.		
Collecting Org:	Texas Natural Resource Conservation Commission		
Location Meth:	Map interpolation, via digital source, Method 1: Water source location was manually plotted on USGS 7.5-minute topographic quadrangle and subsequently digitized.		
Horiz datum:	North American Datum 1927 (NAD27)		
Mapscale:	7.5' X 7.5' (1:24,000)	Fips:	029
Quadnum:	2998-133	Collection date:	Not Reported
Latitude:	29.4969	Longitude:	98.4878
Initials:	JSA	Last changed:	07/10/1995 00:00:00
Remarks:	C A	Status:	Capped
Description:	not reported	Elevation:	221.9

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

D15
North
1/2 - 1 Mile
Higher

TX WELLS B6837103

St_well_nu:	6837103	Cnty_code:	Bexar
Basin:	SAN ANTONIO RIVER	Zone:	1
Reg_num:	11	Prev_well_:	Not Reported
Longitude:	982914	Latitude:	292951
Owner:	San Antonio Water Sys. Basin Station #2		
Driller:	Layne Texas Co.		
Coord_src:	1		
Aqu_code:	EDWARDS AND ASSOCIATED LIMESTONES - (BALCONES FAULT ZONE AQUIFER)		
Aqu_id1:	11	Aqu_id2:	Not Reported
Aqu_id3:	Not Reported	Lsd_elev:	729
Meas_elev:	M	Use_cd_eco:	764200
Date_drill:	05 1960	Well_typ:	W
Well_depth:	1005	Src_depth:	reported by Owner,certain or documented depth
Type_lift:	Submersible Pump	Type of Power:	Electric Motor
Horsepower:	350.00	Primary use:	Public Supply
Secondary use:	Not Reported	Tert use:	Not Reported
Avg Level:	C	Water quality:	Y
Water Logs Available:	Electric		
Other data avail:	Not Reported		
Date collected:	05231996	Reporting agency:	Other State Agencies
Well_sched:	Y	Const method:	hydraulic rotary
Completion:	open hole	Case_mater:	Steel
Screen_mat:	not reported	Lith_log:	Not Reported
Int_lith_b:	Not Reported	Lith_date:	Not Reported

Water Quality Information::

Sample Number:	1	Sample Date:	7/11/1966
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	73.0
Magnesium Flag:	Not Reported	Magnesium MGL:	17.0
Sodium Flag:	Not Reported	Sodium MGL:	6
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	257.49
Sulfate Flag:	Not Reported	Sulfate MGL:	31.0
Chloride Flag:	Not Reported	Chloride MGL:	18.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.3
Nitrate Flag:	Not Reported	Nitrate MGL:	5.0
pH Flag:	Not Reported	pH:	7.5
Total Dissolved Fluids:	276	Total Hardness:	251
Phenol Alkalinity:	0.0	Total Alkalinity:	211.0
SAR:	0.16	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	534
Percent Sodium:	4		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		
Lab Name:	Texas Department of Health		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Sample Date:	8/8/1973
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	76.0
Magnesium Flag:	Not Reported	Magnesium MGL:	17.0
Sodium Flag:	Not Reported	Sodium MGL:	9
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	264.82
Sulfate Flag:	Not Reported	Sulfate MGL:	34.0
Chloride Flag:	Not Reported	Chloride MGL:	15.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.3
Nitrate Flag:	Not Reported	Nitrate MGL:	7.0
pH Flag:	Not Reported	pH:	7.7
Total Dissolved Fluids:	288	Total Hardness:	259
Phenol Alkalinity:	0.0	Total Alkalinity:	217.0
SAR:	0.24	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	560
Percent Sodium:	7		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		

Lab Name: Texas Department of Health

Sample Number:	1	Sample Date:	10/2/1973
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	67.0
Magnesium Flag:	Not Reported	Magnesium MGL:	17.0
Sodium Flag:	Not Reported	Sodium MGL:	9
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	242.85
Sulfate Flag:	Not Reported	Sulfate MGL:	25.0
Chloride Flag:	Not Reported	Chloride MGL:	16.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.4
Nitrate Flag:	Not Reported	Nitrate MGL:	5.3
pH Flag:	Not Reported	pH:	8.0
Total Dissolved Fluids:	259	Total Hardness:	236
Phenol Alkalinity:	0.0	Total Alkalinity:	199.0
SAR:	0.25	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	508
Percent Sodium:	7		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		

Lab Name: Texas Department of Health

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Sample Date:	4/30/1974
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	76.0
Magnesium Flag:	Not Reported	Magnesium MGL:	18.0
Sodium Flag:	Not Reported	Sodium MGL:	8
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	268.48
Sulfate Flag:	Not Reported	Sulfate MGL:	32.0
Chloride Flag:	Not Reported	Chloride MGL:	14.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.2
Nitrate Flag:	Not Reported	Nitrate MGL:	8.0
pH Flag:	Not Reported	pH:	7.6
Total Dissolved Fluids:	288	Total Hardness:	263
Phenol Alkalinity:	0.0	Total Alkalinity:	220.0
SAR:	0.21	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	560
Percent Sodium:	6		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		

Lab Name: Texas Department of Health

Sample Number:	1	Sample Date:	5/30/1974
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	77.0
Magnesium Flag:	Not Reported	Magnesium MGL:	17.0
Sodium Flag:	Not Reported	Sodium MGL:	8
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	266.04
Sulfate Flag:	Not Reported	Sulfate MGL:	31.0
Chloride Flag:	Not Reported	Chloride MGL:	14.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.3
Nitrate Flag:	Not Reported	Nitrate MGL:	7.0
pH Flag:	Not Reported	pH:	7.4
Total Dissolved Fluids:	285	Total Hardness:	261
Phenol Alkalinity:	0.0	Total Alkalinity:	218.0
SAR:	0.21	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	564
Percent Sodium:	6		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		

Lab Name: Texas Department of Health

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Sample Date:	7/25/1980
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	80.0
Magnesium Flag:	Not Reported	Magnesium MGL:	16.0
Sodium Flag:	Not Reported	Sodium MGL:	9
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	269.7
Sulfate Flag:	Not Reported	Sulfate MGL:	33.0
Chloride Flag:	Not Reported	Chloride MGL:	14.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.2
Nitrate Flag:	Not Reported	Nitrate MGL:	7.0
pH Flag:	Not Reported	pH:	8.1
Total Dissolved Fluids:	291	Total Hardness:	265
Phenol Alkalinity:	0.0	Total Alkalinity:	221.0
SAR:	0.24	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	568
Percent Sodium:	6		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		

Lab Name: Texas Department of Health

Sample Number:	1	Sample Date:	6/10/1982
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	74.0
Magnesium Flag:	Not Reported	Magnesium MGL:	14.0
Sodium Flag:	Not Reported	Sodium MGL:	9
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	258.71
Sulfate Flag:	Not Reported	Sulfate MGL:	31.0
Chloride Flag:	Not Reported	Chloride MGL:	14.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.2
Nitrate Flag:	Not Reported	Nitrate MGL:	7.22
pH Flag:	Not Reported	pH:	8.3
Total Dissolved Fluids:	276	Total Hardness:	242
Phenol Alkalinity:	0.0	Total Alkalinity:	212.0
SAR:	0.25	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	539
Percent Sodium:	7		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		

Lab Name: Texas Department of Health

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number: 1	Sample Date: 8/27/1998 1055
Temperature (C): 24	Sampled Aquifer Code: Not Reported
Top of sampled interval: Not Reported	Bottom of sampled interval: Not Reported
Balanced/unbal Analysis: B	Collection Agency: Not Reported
Silica Flag: Not Reported	Silica MGL: 12.9
Calcium Flag: Not Reported	Calcium MGL: 74.2
Magnesium Flag: Not Reported	Magnesium MGL: 16.4
Sodium Flag: Not Reported	Sodium MGL: 10.1
Potassium Flag: Not Reported	Potassium MGL: 1.22
Strontium Flag: Not Reported	Strontium MGL: 0.49
Carbonate MGL: 0.0	Bicarbonate MGL: 259.93
Sulfate Flag: Not Reported	Sulfate MGL: 31.4
Chloride Flag: Not Reported	Chloride MGL: 16.9
Fluoride Flag: Not Reported	Fluoride MGL: 0.15
Nitrate Flag: Not Reported	Nitrate MGL: 6.33
pH Flag: Not Reported	pH: 7.3
Total Dissolved Fluids: 297	Total Hardness: 253
Phenol Alkalinity: 0.0	Total Alkalinity: 213.0
SAR: 0.28	RSC: 0.0
Specific Conductance: Not Reported	Spec. Conductance Flag: 532
Percent Sodium: 8	
Collection Remark: Not Reported	
Reliability Remark:	Sample in accordance with the TWDB's (A Field Manual for Ground-Water Sampling, 1990). Samples are collected when temperature, conductivity, and pH have stabilized. The sample was filtered and field tested for alkalinity. Samples are preserved as applicable, kept chilled, and delivered to the lab. Holding times are honored. Organic sub-samples are not filtered.
Lab Name:	Lower Colorado River Authority

Sample Number: 1	Sample Date: 7/1/1999 0935
Temperature (C): 23	Sampled Aquifer Code: Not Reported
Top of sampled interval: Not Reported	Bottom of sampled interval: Not Reported
Balanced/unbal Analysis: B	Collection Agency: Not Reported
Silica Flag: Not Reported	Silica MGL: 13.4
Calcium Flag: Not Reported	Calcium MGL: 70.3
Magnesium Flag: Not Reported	Magnesium MGL: 16.6
Sodium Flag: Not Reported	Sodium MGL: 10.2
Potassium Flag: Not Reported	Potassium MGL: 1.35
Strontium Flag: Not Reported	Strontium MGL: 0.51
Carbonate MGL: 0.0	Bicarbonate MGL: 236.75
Sulfate Flag: Not Reported	Sulfate MGL: 31.9
Chloride Flag: Not Reported	Chloride MGL: 16.9
Fluoride Flag: Not Reported	Fluoride MGL: 0.19
Nitrate Flag: Not Reported	Nitrate MGL: 7.61
pH Flag: Not Reported	pH: 7.39
Total Dissolved Fluids: 285	Total Hardness: 244
Phenol Alkalinity: 0.0	Total Alkalinity: 194.0
SAR: 0.28	RSC: 0.0
Specific Conductance: Not Reported	Spec. Conductance Flag: 536
Percent Sodium: 8	
Collection Remark: Not Reported	
Reliability Remark:	Sample in accordance with the TWDB's (A Field Manual for Ground-Water Sampling, 1990). Samples are collected when temperature, conductivity, and pH have stabilized. The sample was filtered and field tested for alkalinity. Samples are preserved as applicable, kept chilled, and delivered to the lab. Holding times are honored. Organic sub-samples are not filtered.
Lab Name:	Lower Colorado River Authority

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Water Level Information - 2x Month::

Measurement Number: 01
Depth from land surface: -61.95 Measurement Date: 1/5/1971
Visit Mark: Publishable - water-level is indicative of aquifer's piezometric surface
Measurement Method: Steel Tape Measuring Agency: U.S. Geological Survey
Remark: MEASUREMENT GOOD. NO UNUSUAL CONDITIONS NOTED AT OR NEAR WELL SITE

Measurement Number: 01
Depth from land surface: -59.97 Measurement Date: 2/4/1972
Visit Mark: Publishable - water-level is indicative of aquifer's piezometric surface
Measurement Method: Not Reported Measuring Agency: Not Reported
Remark: MEASUREMENT GOOD. NO UNUSUAL CONDITIONS NOTED AT OR NEAR WELL SITE

Measurement Number: 01
Depth from land surface: -59.05 Measurement Date: 6/8/1972
Visit Mark: Publishable - water-level is indicative of aquifer's piezometric surface
Measurement Method: Steel Tape Measuring Agency: U.S. Geological Survey
Remark: MEASUREMENT GOOD. NO UNUSUAL CONDITIONS NOTED AT OR NEAR WELL SITE

Measurement Number: 01
Depth from land surface: -40.26 Measurement Date: 2/13/1974
Visit Mark: Publishable - water-level is indicative of aquifer's piezometric surface
Measurement Method: Steel Tape Measuring Agency: U.S. Geological Survey
Remark: MEASUREMENT GOOD. NO UNUSUAL CONDITIONS NOTED AT OR NEAR WELL SITE

Measurement Number: 01
Depth from land surface: -64.1 Measurement Date: 7/18/1974
Visit Mark: Publishable - water-level is indicative of aquifer's piezometric surface
Measurement Method: Steel Tape Measuring Agency: U.S. Geological Survey
Remark: MEASUREMENT GOOD. NO UNUSUAL CONDITIONS NOTED AT OR NEAR WELL SITE

Measurement Number: 01
Depth from land surface: -47.42 Measurement Date: 2/14/1978
Visit Mark: Publishable - water-level is indicative of aquifer's piezometric surface
Measurement Method: Steel Tape Measuring Agency: Texas Water Development Board
Remark: MEASUREMENT GOOD. NO UNUSUAL CONDITIONS NOTED AT OR NEAR WELL SITE

Measurement Number: 01
Depth from land surface: -59.35 Measurement Date: 2/20/1981
Visit Mark: Publishable - water-level is indicative of aquifer's piezometric surface
Measurement Method: Steel Tape Measuring Agency: Texas Water Development Board
Remark: MEASUREMENT GOOD. NO UNUSUAL CONDITIONS NOTED AT OR NEAR WELL SITE

Measurement Number: 01
Depth from land surface: -54.91 Measurement Date: 2/9/1982
Visit Mark: Publishable - water-level is indicative of aquifer's piezometric surface
Measurement Method: Steel Tape Measuring Agency: Texas Water Development Board
Remark: MEASUREMENT GOOD. NO UNUSUAL CONDITIONS NOTED AT OR NEAR WELL SITE

Measurement Number: 01
Depth from land surface: Not Reported Measurement Date: 2/9/1983
Visit Mark: Not publishable - water-level is not indicative of aquifer's piezometric surface or no measurement was obtained
Measurement Method: Not Reported Measuring Agency: Texas Water Development Board
Remark: No measurement - well pumping

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Measurement Number: 01
Depth from land surface: -59.97 Measurement Date: 2/4/1972
Visit Mark: Publishable - water-level is indicative of aquifer's piezometric surface
Measurement Method: 0 Measuring Agency: TWC/TNRCC
Remark: 2

Measurement Number: 01
Depth from land surface: -67.7 Measurement Date: 6/8/1972
Visit Mark: Publishable - water-level is indicative of aquifer's piezometric surface
Measurement Method: 0 Measuring Agency: TWC/TNRCC
Remark: 2

Measurement Number: 01
Depth from land surface: -62.82 Measurement Date: 10/16/1972
Visit Mark: Publishable - water-level is indicative of aquifer's piezometric surface
Measurement Method: 0 Measuring Agency: TWC/TNRCC
Remark: 2

Measurement Number: 01
Depth from land surface: -62.24 Measurement Date: 10/17/1972
Visit Mark: Publishable - water-level is indicative of aquifer's piezometric surface
Measurement Method: 0 Measuring Agency: TWC/TNRCC
Remark: 2

Measurement Number: 01
Depth from land surface: -55.55 Measurement Date: 2/9/1973
Visit Mark: Publishable - water-level is indicative of aquifer's piezometric surface
Measurement Method: 0 Measuring Agency: TWC/TNRCC
Remark: 2

Measurement Number: 01
Depth from land surface: -40.26 Measurement Date: 2/13/1974
Visit Mark: Publishable - water-level is indicative of aquifer's piezometric surface
Measurement Method: 0 Measuring Agency: TWC/TNRCC
Remark: MEASUREMENT GOOD. NO UNUSUAL CONDITIONS NOTED AT OR NEAR WELL SITE

Measurement Number: 01
Depth from land surface: -64.1 Measurement Date: 7/18/1974
Visit Mark: Publishable - water-level is indicative of aquifer's piezometric surface
Measurement Method: 0 Measuring Agency: TWC/TNRCC
Remark: MEASUREMENT GOOD. NO UNUSUAL CONDITIONS NOTED AT OR NEAR WELL SITE

Measurement Number: 01
Depth from land surface: -47.77 Measurement Date: 7/16/1975
Visit Mark: Publishable - water-level is indicative of aquifer's piezometric surface
Measurement Method: 0 Measuring Agency: TWC/TNRCC
Remark: MEASUREMENT GOOD. NO UNUSUAL CONDITIONS NOTED AT OR NEAR WELL SITE

Measurement Number: 01
Depth from land surface: -61.55 Measurement Date: 2/23/1976
Visit Mark: Publishable - water-level is indicative of aquifer's piezometric surface
Measurement Method: 0 Measuring Agency: TWC/TNRCC
Remark: MEASUREMENT GOOD. NO UNUSUAL CONDITIONS NOTED AT OR NEAR WELL SITE

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	4/30/1974
Constituent Value:	50.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	<	Sample Date:	5/30/1974
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	5/30/1974
Constituent Value:	50.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	Not Reported	Sample Date:	7/25/1980
Constituent Value:	40.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	7/25/1980
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	<	Sample Date:	6/10/1982
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	6/10/1982
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	00010
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	24	Confidence (+ or -):	Not Reported
Storet Code Description:	TEMPERATURE, WATER (CELCIUS)		
Constituent Name:	WATER	Unit of Measurement:	C
Sample Number:	1	Storet Number:	00090
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	135	Confidence (+ or -):	Not Reported
Storet Code Description:	OXIDATION REDUCTION POTENTIAL (ORP), MILLIVOLTS		
Constituent Name:	REDOX	Unit of Measurement:	MV
Sample Number:	1	Storet Number:	00608
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	0.07	Confidence (+ or -):	Not Reported
Storet Code Description:	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)		
Constituent Name:	NH3-N	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00623
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	0.07	Confidence (+ or -):	Not Reported
Storet Code Description:	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)		
Constituent Name:	KJELDL	Unit of Measurement:	MG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Storet Number:	00631
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	1.43	Confidence (+ or -):	Not Reported
Storet Code Description:	NITRITE PLUS NITRATE, DISSOLVED (MG/L AS N)		
Constituent Name:	NO2+NO3	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00666
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	0.07	Confidence (+ or -):	Not Reported
Storet Code Description:	PHOSPHORUS, DISSOLVED (MG/L AS P)		
Constituent Name:	PHOS-DIS	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	01000
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	2	Confidence (+ or -):	Not Reported
Storet Code Description:	ARSENIC, DISSOLVED (UG/L AS AS)		
Constituent Name:	ARSENIC	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01005
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	35.5	Confidence (+ or -):	Not Reported
Storet Code Description:	BARIUM, DISSOLVED (UG/L AS BA)		
Constituent Name:	BARIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01010
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	BERYLLIUM, DISSOLVED (UG/L AS BE)		
Constituent Name:	BERYLLIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01020
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	45	Confidence (+ or -):	Not Reported
Storet Code Description:	BORON, DISSOLVED (UG/L AS B)		
Constituent Name:	BORON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01025
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	CADMIUM, DISSOLVED (UG/L AS CD)		
Constituent Name:	CADMIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01030
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	8.1	Confidence (+ or -):	Not Reported
Storet Code Description:	CHROMIUM, DISSOLVED (UG/L AS CR)		
Constituent Name:	CHROMIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01035
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	COBALT, DISSOLVED (UG/L AS CO)		
Constituent Name:	COBALT	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01040
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	2	Confidence (+ or -):	Not Reported
Storet Code Description:	COPPER, DISSOLVED (UG/L AS CU)		
Constituent Name:	COPPER	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01046
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	11	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, DISSOLVED (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Storet Number:	01049
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	2.5	Confidence (+ or -):	Not Reported
Storet Code Description:	LEAD, DISSOLVED (UG/L AS PB)		
Constituent Name:	LEAD	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01056
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, DISSOLVED (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01057
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	THALLIUM, DISSOLVED (UG/L AS TL)		
Constituent Name:	THALLIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01060
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	MOLYBDENUM, DISSOLVED, UG/L		
Constituent Name:	MOLY	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01065
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	7	Confidence (+ or -):	Not Reported
Storet Code Description:	NICKEL, DISSOLVED (UG/L AS NI)		
Constituent Name:	NICKEL	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01080
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	492	Confidence (+ or -):	Not Reported
Storet Code Description:	STRONTIUM, DISSOLVED (UG/L AS SR)		
Constituent Name:	STRONTIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01085
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	4.7	Confidence (+ or -):	Not Reported
Storet Code Description:	VANADIUM, DISSOLVED (UG/L AS V)		
Constituent Name:	VANADIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01090
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	5.9	Confidence (+ or -):	Not Reported
Storet Code Description:	ZINC, DISSOLVED (UG/L AS ZN)		
Constituent Name:	ZINC	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01095
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	ANTIMONY, DISSOLVED (UG/L AS SB)		
Constituent Name:	ANTIMONY	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01106
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	4	Confidence (+ or -):	Not Reported
Storet Code Description:	ALUMINUM, DISSOLVED (UG/L AS AL)		
Constituent Name:	ALUMINUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01130
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	4	Confidence (+ or -):	Not Reported
Storet Code Description:	LITHIUM, DISSOLVED (UG/L AS LI)		
Constituent Name:	LITHIUM	Unit of Measurement:	UG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Storet Number:	01145
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	4	Confidence (+ or -):	Not Reported
Storet Code Description:	SELENIUM, DISSOLVED (UG/L AS SE)		
Constituent Name:	SELENIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	39086
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	222	Confidence (+ or -):	Not Reported
Storet Code Description:	ALKALINITY, FIELD, DISSOLVED AS CaCO3		
Constituent Name:	ALKLNITY	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	71870
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	0.05	Confidence (+ or -):	Not Reported
Storet Code Description:	BROMIDE, DISSOLVED, (MG/L AS BR)		
Constituent Name:	BROMIDE	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00010
Sample Flag:	Not Reported	Sample Date:	7/1/1999
Constituent Value:	23.4	Confidence (+ or -):	Not Reported
Storet Code Description:	TEMPERATURE, WATER (CELCIUS)		
Constituent Name:	WATER	Unit of Measurement:	C
Sample Number:	1	Storet Number:	00090
Sample Flag:	Not Reported	Sample Date:	7/1/1999
Constituent Value:	227.3	Confidence (+ or -):	Not Reported
Storet Code Description:	OXIDATION REDUCTION POTENTIAL (ORP), MILLIVOLTS		
Constituent Name:	REDOX	Unit of Measurement:	MV
Sample Number:	1	Storet Number:	00608
Sample Flag:	<	Sample Date:	7/1/1999
Constituent Value:	0.02	Confidence (+ or -):	Not Reported
Storet Code Description:	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)		
Constituent Name:	NH3-N	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00623
Sample Flag:	<	Sample Date:	7/1/1999
Constituent Value:	0.04	Confidence (+ or -):	Not Reported
Storet Code Description:	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)		
Constituent Name:	KJELDL	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00631
Sample Flag:	Not Reported	Sample Date:	7/1/1999
Constituent Value:	1.72	Confidence (+ or -):	Not Reported
Storet Code Description:	NITRITE PLUS NITRATE, DISSOLVED (MG/L AS N)		
Constituent Name:	NO2+NO3	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00666
Sample Flag:	<	Sample Date:	7/1/1999
Constituent Value:	0.04	Confidence (+ or -):	Not Reported
Storet Code Description:	PHOSPHORUS, DISSOLVED (MG/L AS P)		
Constituent Name:	PHOS-DIS	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	01000
Sample Flag:	<	Sample Date:	7/1/1999
Constituent Value:	2	Confidence (+ or -):	Not Reported
Storet Code Description:	ARSENIC, DISSOLVED (UG/L AS AS)		
Constituent Name:	ARSENIC	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01005
Sample Flag:	Not Reported	Sample Date:	7/1/1999
Constituent Value:	39.9	Confidence (+ or -):	Not Reported
Storet Code Description:	BARIUM, DISSOLVED (UG/L AS BA)		
Constituent Name:	BARIUM	Unit of Measurement:	UG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Storet Number:	01010
Sample Flag:	<	Sample Date:	7/1/1999
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	BERYLLIUM, DISSOLVED (UG/L AS BE)		
Constituent Name:	BERYLLIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01020
Sample Flag:	Not Reported	Sample Date:	7/1/1999
Constituent Value:	53	Confidence (+ or -):	Not Reported
Storet Code Description:	BORON, DISSOLVED (UG/L AS B)		
Constituent Name:	BORON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01025
Sample Flag:	Not Reported	Sample Date:	7/1/1999
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	CADMIUM, DISSOLVED (UG/L AS CD)		
Constituent Name:	CADMIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01030
Sample Flag:	Not Reported	Sample Date:	7/1/1999
Constituent Value:	1.8	Confidence (+ or -):	Not Reported
Storet Code Description:	CHROMIUM, DISSOLVED (UG/L AS CR)		
Constituent Name:	CHROMIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01035
Sample Flag:	<	Sample Date:	7/1/1999
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	COBALT, DISSOLVED (UG/L AS CO)		
Constituent Name:	COBALT	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01040
Sample Flag:	<	Sample Date:	7/1/1999
Constituent Value:	2	Confidence (+ or -):	Not Reported
Storet Code Description:	COPPER, DISSOLVED (UG/L AS CU)		
Constituent Name:	COPPER	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01046
Sample Flag:	<	Sample Date:	7/1/1999
Constituent Value:	50	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, DISSOLVED (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01049
Sample Flag:	Not Reported	Sample Date:	7/1/1999
Constituent Value:	1.6	Confidence (+ or -):	Not Reported
Storet Code Description:	LEAD, DISSOLVED (UG/L AS PB)		
Constituent Name:	LEAD	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01056
Sample Flag:	Not Reported	Sample Date:	7/1/1999
Constituent Value:	1.2	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, DISSOLVED (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01057
Sample Flag:	Not Reported	Sample Date:	7/1/1999
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	THALLIUM, DISSOLVED (UG/L AS TL)		
Constituent Name:	THALLIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01060
Sample Flag:	Not Reported	Sample Date:	7/1/1999
Constituent Value:	2.1	Confidence (+ or -):	Not Reported
Storet Code Description:	MOLYBDENUM, DISSOLVED, UG/L		
Constituent Name:	MOLY	Unit of Measurement:	UG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Storet Number:	01065
Sample Flag:	Not Reported	Sample Date:	7/1/1999
Constituent Value:	6.7	Confidence (+ or -):	Not Reported
Storet Code Description:	NICKEL, DISSOLVED (UG/L AS NI)		
Constituent Name:	NICKEL	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01080
Sample Flag:	Not Reported	Sample Date:	7/1/1999
Constituent Value:	513	Confidence (+ or -):	Not Reported
Storet Code Description:	STRONTIUM, DISSOLVED (UG/L AS SR)		
Constituent Name:	STRONTIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01085
Sample Flag:	Not Reported	Sample Date:	7/1/1999
Constituent Value:	4	Confidence (+ or -):	Not Reported
Storet Code Description:	VANADIUM, DISSOLVED (UG/L AS V)		
Constituent Name:	VANADIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01090
Sample Flag:	Not Reported	Sample Date:	7/1/1999
Constituent Value:	6.4	Confidence (+ or -):	Not Reported
Storet Code Description:	ZINC, DISSOLVED (UG/L AS ZN)		
Constituent Name:	ZINC	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01095
Sample Flag:	Not Reported	Sample Date:	7/1/1999
Constituent Value:	1.3	Confidence (+ or -):	Not Reported
Storet Code Description:	ANTIMONY, DISSOLVED (UG/L AS SB)		
Constituent Name:	ANTIMONY	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01106
Sample Flag:	<	Sample Date:	7/1/1999
Constituent Value:	4	Confidence (+ or -):	Not Reported
Storet Code Description:	ALUMINUM, DISSOLVED (UG/L AS AL)		
Constituent Name:	ALUMINUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01130
Sample Flag:	Not Reported	Sample Date:	7/1/1999
Constituent Value:	7.3	Confidence (+ or -):	Not Reported
Storet Code Description:	LITHIUM, DISSOLVED (UG/L AS LI)		
Constituent Name:	LITHIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01145
Sample Flag:	Not Reported	Sample Date:	7/1/1999
Constituent Value:	6.2	Confidence (+ or -):	Not Reported
Storet Code Description:	SELENIUM, DISSOLVED (UG/L AS SE)		
Constituent Name:	SELENIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	39086
Sample Flag:	Not Reported	Sample Date:	7/1/1999
Constituent Value:	222.0	Confidence (+ or -):	Not Reported
Storet Code Description:	ALKALINITY, FIELD, DISSOLVED AS CaCO3		
Constituent Name:	ALKALINITY	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	71870
Sample Flag:	Not Reported	Sample Date:	7/1/1999
Constituent Value:	0.09	Confidence (+ or -):	Not Reported
Storet Code Description:	BROMIDE, DISSOLVED, (MG/L AS BR)		
Constituent Name:	BROMIDE	Unit of Measurement:	MG/L

Remarks:

Tested at 7985 gpm with 5 ft draw-down in 1960. Cemented to 584 ft.

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

E16
North
1/2 - 1 Mile
Higher

TX WELLS B6837102

St_well_nu:	6837102	Cnty_code:	Bexar
Basin:	SAN ANTONIO RIVER	Zone:	1
Reg_num:	11	Prev_well_:	Not Reported
Longitude:	982917	Latitude:	292952
Owner:	San Antonio Water Sys. Basin Station #1		
Driller:	J. R. Johnson Drilling & Supplies		
Coord_src:	1		
Aqu_code:	EDWARDS AND ASSOCIATED LIMESTONES - (BALCONES FAULT ZONE AQUIFER)		
Aqu_id1:	11	Aqu_id2:	Not Reported
Aqu_id3:	Not Reported	Lsd_elev:	724
Meas_elev:	M	Use_cd_eco:	764200
Date_drill:	1957	Well_typ:	W
Well_depth:	1002	Src_depth:	Geophysical Logs
Type_lift:	Turbine Pump	Type of Power:	Electric Motor
Horsepower:	350.00	Primary use:	Public Supply
Secondary use:	Not Reported	Tert use:	Not Reported
Avg Level:	N	Water quality:	Y
Water Logs Available:	Electric		
Other data avail:	Not Reported		
Date collected:	05231996	Reporting agency:	Other State Agencies
Well_sched:	Y	Const method:	not reported
Completion:	not reported	Case_mater:	not reported
Screen_mat:	not reported	Lith_log:	Not Reported
Int_lith_b:	Not Reported	Lith_date:	Not Reported

Water Quality Information::

Sample Number:	1	Sample Date:	1/12/1970
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	76.0
Magnesium Flag:	Not Reported	Magnesium MGL:	17.0
Sodium Flag:	Not Reported	Sodium MGL:	7
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	264.82
Sulfate Flag:	Not Reported	Sulfate MGL:	34.0
Chloride Flag:	Not Reported	Chloride MGL:	12.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.2
Nitrate Flag:	Not Reported	Nitrate MGL:	5.5
pH Flag:	Not Reported	pH:	7.5
Total Dissolved Fluids:	281	Total Hardness:	259
Phenol Alkalinity:	0.0	Total Alkalinity:	217.0
SAR:	0.19	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	544
Percent Sodium:	5		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		
Lab Name:	Texas Department of Health		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number: 1	Sample Date: 3/24/1972
Temperature (C): Not Reported	Sampled Aquifer Code: Not Reported
Top of sampled interval: Not Reported	Bottom of sampled interval: Not Reported
Balanced/unbal Analysis: B	Collection Agency: RAW SUPPLY
Silica Flag: Not Reported	Silica MGL: Not Reported
Calcium Flag: Not Reported	Calcium MGL: 76.0
Magnesium Flag: Not Reported	Magnesium MGL: 18.0
Sodium Flag: Not Reported	Sodium MGL: 7
Potassium Flag: Not Reported	Potassium MGL: Not Reported
Strontium Flag: Not Reported	Strontium MGL: Not Reported
Carbonate MGL: 0.0	Bicarbonate MGL: 263.59
Sulfate Flag: Not Reported	Sulfate MGL: 33.0
Chloride Flag: Not Reported	Chloride MGL: 13.0
Fluoride Flag: Not Reported	Fluoride MGL: 0.3
Nitrate Flag: Not Reported	Nitrate MGL: 6.0
pH Flag: Not Reported	pH: 7.5
Total Dissolved Fluids: 282	Total Hardness: 263
Phenol Alkalinity: 0.0	Total Alkalinity: 216.0
SAR: 0.19	RSC: 0.0
Specific Conductance: Not Reported	Spec. Conductance Flag: 540
Percent Sodium: 5	
Collection Remark: raw supply	
Reliability Remark: Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored	
Lab Name: Texas Department of Health	

Sample Number: 1	Sample Date: 8/9/1973
Temperature (C): Not Reported	Sampled Aquifer Code: Not Reported
Top of sampled interval: Not Reported	Bottom of sampled interval: Not Reported
Balanced/unbal Analysis: B	Collection Agency: RAW SUPPLY
Silica Flag: Not Reported	Silica MGL: Not Reported
Calcium Flag: Not Reported	Calcium MGL: 77.0
Magnesium Flag: Not Reported	Magnesium MGL: 17.0
Sodium Flag: Not Reported	Sodium MGL: 19
Potassium Flag: Not Reported	Potassium MGL: Not Reported
Strontium Flag: Not Reported	Strontium MGL: Not Reported
Carbonate MGL: 0.0	Bicarbonate MGL: 267.26
Sulfate Flag: Not Reported	Sulfate MGL: 35.0
Chloride Flag: Not Reported	Chloride MGL: 15.0
Fluoride Flag: Not Reported	Fluoride MGL: 0.3
Nitrate Flag: Not Reported	Nitrate MGL: 7.0
pH Flag: Not Reported	pH: 8.2
Total Dissolved Fluids: 301	Total Hardness: 261
Phenol Alkalinity: 0.0	Total Alkalinity: 219.0
SAR: 0.51	RSC: 0.0
Specific Conductance: Not Reported	Spec. Conductance Flag: 560
Percent Sodium: 13	
Collection Remark: raw supply	
Reliability Remark: Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored	
Lab Name: Texas Department of Health	

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Sample Date:	4/15/1975
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	80.0
Magnesium Flag:	Not Reported	Magnesium MGL:	16.0
Sodium Flag:	Not Reported	Sodium MGL:	8
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	269.7
Sulfate Flag:	Not Reported	Sulfate MGL:	36.0
Chloride Flag:	Not Reported	Chloride MGL:	15.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.3
Nitrate Flag:	Not Reported	Nitrate MGL:	8.0
pH Flag:	Not Reported	pH:	8.1
Total Dissolved Fluids:	295	Total Hardness:	265
Phenol Alkalinity:	0.0	Total Alkalinity:	221.0
SAR:	0.21	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	580
Percent Sodium:	6		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		
Lab Name:	Texas Department of Health		

Sample Number:	1	Sample Date:	10/29/1976
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	64.0
Magnesium Flag:	Not Reported	Magnesium MGL:	17.0
Sodium Flag:	Not Reported	Sodium MGL:	8
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	231.87
Sulfate Flag:	Not Reported	Sulfate MGL:	32.0
Chloride Flag:	Not Reported	Chloride MGL:	15.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.2
Nitrate Flag:	Not Reported	Nitrate MGL:	7.0
pH Flag:	Not Reported	pH:	8.1
Total Dissolved Fluids:	257	Total Hardness:	229
Phenol Alkalinity:	0.0	Total Alkalinity:	190.0
SAR:	0.23	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	498
Percent Sodium:	7		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		
Lab Name:	Texas Department of Health		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Sample Date:	12/22/1978
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	81.0
Magnesium Flag:	Not Reported	Magnesium MGL:	17.0
Sodium Flag:	Not Reported	Sodium MGL:	8
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	269.7
Sulfate Flag:	Not Reported	Sulfate MGL:	34.0
Chloride Flag:	Not Reported	Chloride MGL:	16.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.2
Nitrate Flag:	Not Reported	Nitrate MGL:	8.0
pH Flag:	Not Reported	pH:	7.6
Total Dissolved Fluids:	296	Total Hardness:	271
Phenol Alkalinity:	0.0	Total Alkalinity:	221.0
SAR:	0.21	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	568
Percent Sodium:	6		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		

Lab Name: Texas Department of Health

Sample Number:	1	Sample Date:	2/8/1979
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	79.0
Magnesium Flag:	Not Reported	Magnesium MGL:	15.0
Sodium Flag:	Not Reported	Sodium MGL:	8
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	270.92
Sulfate Flag:	Not Reported	Sulfate MGL:	32.0
Chloride Flag:	Not Reported	Chloride MGL:	15.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.2
Nitrate Flag:	Not Reported	Nitrate MGL:	7.6
pH Flag:	Not Reported	pH:	7.5
Total Dissolved Fluids:	290	Total Hardness:	258
Phenol Alkalinity:	0.0	Total Alkalinity:	222.0
SAR:	0.22	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	564
Percent Sodium:	6		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		

Lab Name: Texas Department of Health

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number: 1	Sample Date: 6/10/1980
Temperature (C): Not Reported	Sampled Aquifer Code: Not Reported
Top of sampled interval: Not Reported	Bottom of sampled interval: Not Reported
Balanced/unbal Analysis: B	Collection Agency: RAW SUPPLY
Silica Flag: Not Reported	Silica MGL: Not Reported
Calcium Flag: Not Reported	Calcium MGL: 78.0
Magnesium Flag: Not Reported	Magnesium MGL: 15.0
Sodium Flag: Not Reported	Sodium MGL: 9
Potassium Flag: Not Reported	Potassium MGL: Not Reported
Strontium Flag: Not Reported	Strontium MGL: Not Reported
Carbonate MGL: 0.0	Bicarbonate MGL: 269.7
Sulfate Flag: Not Reported	Sulfate MGL: 36.0
Chloride Flag: Not Reported	Chloride MGL: 15.0
Fluoride Flag: Not Reported	Fluoride MGL: 0.2
Nitrate Flag: Not Reported	Nitrate MGL: 7.6
pH Flag: Not Reported	pH: 7.8
Total Dissolved Fluids: 293	Total Hardness: 256
Phenol Alkalinity: 0.0	Total Alkalinity: 221.0
SAR: 0.24	RSC: 0.0
Specific Conductance: Not Reported	Spec. Conductance Flag: 572
Percent Sodium: 7	
Collection Remark: raw supply	
Reliability Remark: Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored	
Lab Name: Texas Department of Health	

Sample Number: 1	Sample Date: 3/2/1981
Temperature (C): Not Reported	Sampled Aquifer Code: Not Reported
Top of sampled interval: Not Reported	Bottom of sampled interval: Not Reported
Balanced/unbal Analysis: B	Collection Agency: RAW SUPPLY
Silica Flag: Not Reported	Silica MGL: Not Reported
Calcium Flag: Not Reported	Calcium MGL: 78.0
Magnesium Flag: Not Reported	Magnesium MGL: 14.0
Sodium Flag: Not Reported	Sodium MGL: 9
Potassium Flag: Not Reported	Potassium MGL: Not Reported
Strontium Flag: Not Reported	Strontium MGL: Not Reported
Carbonate MGL: 0.0	Bicarbonate MGL: 270.92
Sulfate Flag: Not Reported	Sulfate MGL: 32.0
Chloride Flag: Not Reported	Chloride MGL: 14.0
Fluoride Flag: Not Reported	Fluoride MGL: 0.2
Nitrate Flag: Not Reported	Nitrate MGL: 7.2
pH Flag: Not Reported	pH: 8.0
Total Dissolved Fluids: 287	Total Hardness: 252
Phenol Alkalinity: 0.0	Total Alkalinity: 222.0
SAR: 0.25	RSC: 0.0
Specific Conductance: Not Reported	Spec. Conductance Flag: 556
Percent Sodium: 7	
Collection Remark: raw supply	
Reliability Remark: Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored	
Lab Name: Texas Department of Health	

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Sample Date:	3/24/1982
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	80.0
Magnesium Flag:	Not Reported	Magnesium MGL:	15.0
Sodium Flag:	Not Reported	Sodium MGL:	9
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	272.14
Sulfate Flag:	Not Reported	Sulfate MGL:	33.0
Chloride Flag:	Not Reported	Chloride MGL:	15.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.2
Nitrate Flag:	Not Reported	Nitrate MGL:	7.31
pH Flag:	Not Reported	pH:	7.9
Total Dissolved Fluids:	293	Total Hardness:	261
Phenol Alkalinity:	0.0	Total Alkalinity:	223.0
SAR:	0.24	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	563
Percent Sodium:	6		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		
Lab Name:	Texas Department of Health		

Sample Number:	1	Sample Date:	3/28/1983
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	74.0
Magnesium Flag:	Not Reported	Magnesium MGL:	17.0
Sodium Flag:	Not Reported	Sodium MGL:	9
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	268.48
Sulfate Flag:	Not Reported	Sulfate MGL:	32.0
Chloride Flag:	Not Reported	Chloride MGL:	16.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.2
Nitrate Flag:	Not Reported	Nitrate MGL:	7.18
pH Flag:	Not Reported	pH:	7.9
Total Dissolved Fluids:	287	Total Hardness:	254
Phenol Alkalinity:	0.0	Total Alkalinity:	220.0
SAR:	0.25	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	556
Percent Sodium:	7		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		
Lab Name:	Texas Department of Health		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Sample Date:	3/22/1984
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	76.0
Magnesium Flag:	Not Reported	Magnesium MGL:	17.0
Sodium Flag:	Not Reported	Sodium MGL:	9
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	269.7
Sulfate Flag:	Not Reported	Sulfate MGL:	30.0
Chloride Flag:	Not Reported	Chloride MGL:	14.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.2
Nitrate Flag:	Not Reported	Nitrate MGL:	7.22
pH Flag:	Not Reported	pH:	7.7
Total Dissolved Fluids:	286	Total Hardness:	259
Phenol Alkalinity:	0.0	Total Alkalinity:	221.0
SAR:	0.24	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	568
Percent Sodium:	7		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		
Lab Name:	Texas Department of Health		

Sample Number:	1	Sample Date:	8/27/1998 0935
Temperature (C):	24	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	Not Reported
Silica Flag:	Not Reported	Silica MGL:	12.8
Calcium Flag:	Not Reported	Calcium MGL:	75.5
Magnesium Flag:	Not Reported	Magnesium MGL:	16.5
Sodium Flag:	Not Reported	Sodium MGL:	10.2
Potassium Flag:	Not Reported	Potassium MGL:	1.24
Strontium Flag:	Not Reported	Strontium MGL:	0.51
Carbonate MGL:	0.0	Bicarbonate MGL:	263.59
Sulfate Flag:	Not Reported	Sulfate MGL:	31.8
Chloride Flag:	Not Reported	Chloride MGL:	16.6
Fluoride Flag:	Not Reported	Fluoride MGL:	0.16
Nitrate Flag:	Not Reported	Nitrate MGL:	6.46
pH Flag:	Not Reported	pH:	7.3
Total Dissolved Fluids:	301	Total Hardness:	256
Phenol Alkalinity:	0.0	Total Alkalinity:	216.0
SAR:	0.28	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	532
Percent Sodium:	7		
Collection Remark:	Not Reported		
Reliability Remark:	Sample in accordance with the TWDB's (A Field Manual for Ground-Water Sampling, 1990). Samples are collected when temperature, conductivity, and pH have stabilized. The sample was filtered and field tested for alkalinity. Samples are preserved as applicable, kept chilled, and delivered to the lab. Holding times are honored. Organic sub-samples are not filtered.		
Lab Name:	Lower Colorado River Authority		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number: 1	Sample Date: 6/21/2000 1322
Temperature (C): 24	Sampled Aquifer Code: Not Reported
Top of sampled interval: Not Reported	Bottom of sampled interval: Not Reported
Balanced/unbal Analysis: B	Collection Agency: Not Reported
Silica Flag: Not Reported	Silica MGL: 13.8
Calcium Flag: Not Reported	Calcium MGL: 78.9
Magnesium Flag: Not Reported	Magnesium MGL: 17.9
Sodium Flag: Not Reported	Sodium MGL: 10.9
Potassium Flag: Not Reported	Potassium MGL: 1.4
Strontium Flag: Not Reported	Strontium MGL: 0.58
Carbonate MGL: 0.0	Bicarbonate MGL: 268.48
Sulfate Flag: Not Reported	Sulfate MGL: 29.4
Chloride Flag: Not Reported	Chloride MGL: 16.2
Fluoride Flag: Not Reported	Fluoride MGL: 0.18
Nitrate Flag: Not Reported	Nitrate MGL: 8.32
pH Flag: Not Reported	pH: 7.1
Total Dissolved Fluids: 309	Total Hardness: 271
Phenol Alkalinity: 0.0	Total Alkalinity: 220.0
SAR: 0.29	RSC: 0.0
Specific Conductance: Not Reported	Spec. Conductance Flag: 535
Percent Sodium: 8	
Collection Remark: Not Reported	
Reliability Remark: Sample in accordance with the TWDB's (A Field Manual for Ground-Water Sampling, 1990). Samples are collected when temperature, conductivity, and pH have stabilized. The sample was filtered and field tested for alkalinity. Samples are preserved as applicable, kept chilled, and delivered to the lab. Holding times are honored. Organic sub-samples are not filtered.	
Lab Name: Lower Colorado River Authority	

Well Casing Information::

Indicator	Diameter	Top of Interval	Bottom of Interval
Open Hole	Not Reported	568	1088

Infrequent Constituent Information::

Sample Number: 1	Storet Number: 01045
Sample Flag: <	Sample Date: 1/12/1970
Constituent Value: 20.	Confidence (+ or -): Not Reported
Storet Code Description: IRON, TOTAL (UG/L AS FE)	
Constituent Name: IRON	Unit of Measurement: UG/L
Sample Number: 1	Storet Number: 01055
Sample Flag: <	Sample Date: 1/12/1970
Constituent Value: 50.	Confidence (+ or -): Not Reported
Storet Code Description: MANGANESE, TOTAL (UG/L AS MN)	
Constituent Name: MANGNESE	Unit of Measurement: UG/L
Sample Number: 1	Storet Number: 01045
Sample Flag: <	Sample Date: 3/24/1972
Constituent Value: 20.	Confidence (+ or -): Not Reported
Storet Code Description: IRON, TOTAL (UG/L AS FE)	
Constituent Name: IRON	Unit of Measurement: UG/L
Sample Number: 1	Storet Number: 01055
Sample Flag: <	Sample Date: 3/24/1972
Constituent Value: 50.	Confidence (+ or -): Not Reported
Storet Code Description: MANGANESE, TOTAL (UG/L AS MN)	
Constituent Name: MANGNESE	Unit of Measurement: UG/L
Sample Number: 1	Storet Number: 01045
Sample Flag: <	Sample Date: 8/9/1973
Constituent Value: 20.	Confidence (+ or -): Not Reported
Storet Code Description: IRON, TOTAL (UG/L AS FE)	
Constituent Name: IRON	Unit of Measurement: UG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	8/9/1973
Constituent Value:	50.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	<	Sample Date:	4/15/1975
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	4/15/1975
Constituent Value:	50.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	<	Sample Date:	10/29/1976
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	10/29/1976
Constituent Value:	50.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	<	Sample Date:	12/22/1978
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	12/22/1978
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	<	Sample Date:	2/8/1979
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	2/8/1979
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	Not Reported	Sample Date:	6/10/1980
Constituent Value:	40.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	6/10/1980
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Storet Number:	01045
Sample Flag:	<	Sample Date:	3/2/1981
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	3/2/1981
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	<	Sample Date:	3/24/1982
Constituent Value:	50.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	3/24/1982
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	Not Reported	Sample Date:	3/28/1983
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	3/28/1983
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	Not Reported	Sample Date:	3/22/1984
Constituent Value:	40.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	3/22/1984
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	00010
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	24	Confidence (+ or -):	Not Reported
Storet Code Description:	TEMPERATURE, WATER (CELCIUS)		
Constituent Name:	WATER	Unit of Measurement:	C
Sample Number:	1	Storet Number:	00090
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	155	Confidence (+ or -):	Not Reported
Storet Code Description:	OXIDATION REDUCTION POTENTIAL (ORP), MILLIVOLTS		
Constituent Name:	REDOX	Unit of Measurement:	MV
Sample Number:	1	Storet Number:	00608
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	0.08	Confidence (+ or -):	Not Reported
Storet Code Description:	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)		
Constituent Name:	NH3-N	Unit of Measurement:	MG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Storet Number:	00623
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	0.28	Confidence (+ or -):	Not Reported
Storet Code Description:	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)		
Constituent Name:	KJELDL	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00631
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	1.46	Confidence (+ or -):	Not Reported
Storet Code Description:	NITRITE PLUS NITRATE, DISSOLVED (MG/L AS N)		
Constituent Name:	NO2+NO3	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00666
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	0.07	Confidence (+ or -):	Not Reported
Storet Code Description:	PHOSPHORUS, DISSOLVED (MG/L AS P)		
Constituent Name:	PHOS-DIS	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	01000
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	2	Confidence (+ or -):	Not Reported
Storet Code Description:	ARSENIC, DISSOLVED (UG/L AS AS)		
Constituent Name:	ARSENIC	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01005
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	36.3	Confidence (+ or -):	Not Reported
Storet Code Description:	BARIUM, DISSOLVED (UG/L AS BA)		
Constituent Name:	BARIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01010
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	BERYLLIUM, DISSOLVED (UG/L AS BE)		
Constituent Name:	BERYLLIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01020
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	48	Confidence (+ or -):	Not Reported
Storet Code Description:	BORON, DISSOLVED (UG/L AS B)		
Constituent Name:	BORON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01025
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	CADMIUM, DISSOLVED (UG/L AS CD)		
Constituent Name:	CADMIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01030
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	8	Confidence (+ or -):	Not Reported
Storet Code Description:	CHROMIUM, DISSOLVED (UG/L AS CR)		
Constituent Name:	CHROMIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01035
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	COBALT, DISSOLVED (UG/L AS CO)		
Constituent Name:	COBALT	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01040
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	2.3	Confidence (+ or -):	Not Reported
Storet Code Description:	COPPER, DISSOLVED (UG/L AS CU)		
Constituent Name:	COPPER	Unit of Measurement:	UG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Storet Number:	01046
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	12	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, DISSOLVED (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01049
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	LEAD, DISSOLVED (UG/L AS PB)		
Constituent Name:	LEAD	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01056
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, DISSOLVED (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01057
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	THALLIUM, DISSOLVED (UG/L AS TL)		
Constituent Name:	THALLIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01060
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	MOLYBDENUM, DISSOLVED, UG/L		
Constituent Name:	MOLY	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01065
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	6.8	Confidence (+ or -):	Not Reported
Storet Code Description:	NICKEL, DISSOLVED (UG/L AS NI)		
Constituent Name:	NICKEL	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01080
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	508	Confidence (+ or -):	Not Reported
Storet Code Description:	STRONTIUM, DISSOLVED (UG/L AS SR)		
Constituent Name:	STRONTUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01085
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	4.7	Confidence (+ or -):	Not Reported
Storet Code Description:	VANADIUM, DISSOLVED (UG/L AS V)		
Constituent Name:	VANADIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01090
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	5	Confidence (+ or -):	Not Reported
Storet Code Description:	ZINC, DISSOLVED (UG/L AS ZN)		
Constituent Name:	ZINC	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01095
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	ANTIMONY, DISSOLVED (UG/L AS SB)		
Constituent Name:	ANTIMONY	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01106
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	4	Confidence (+ or -):	Not Reported
Storet Code Description:	ALUMINUM, DISSOLVED (UG/L AS AL)		
Constituent Name:	ALUMINUM	Unit of Measurement:	UG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Storet Number:	01130
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	4.1	Confidence (+ or -):	Not Reported
Storet Code Description:	LITHIUM, DISSOLVED (UG/L AS LI)		
Constituent Name:	LITHIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01145
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	4	Confidence (+ or -):	Not Reported
Storet Code Description:	SELENIUM, DISSOLVED (UG/L AS SE)		
Constituent Name:	SELENIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	39086
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	226	Confidence (+ or -):	Not Reported
Storet Code Description:	ALKALINITY, FIELD, DISSOLVED AS CaCO3		
Constituent Name:	ALKLNITY	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	71870
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	0.1	Confidence (+ or -):	Not Reported
Storet Code Description:	BROMIDE, DISSOLVED, (MG/L AS BR)		
Constituent Name:	BROMIDE	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00010
Sample Flag:	Not Reported	Sample Date:	6/21/2000
Constituent Value:	23.9	Confidence (+ or -):	Not Reported
Storet Code Description:	TEMPERATURE, WATER (CELCIUS)		
Constituent Name:	WATER	Unit of Measurement:	C
Sample Number:	1	Storet Number:	39086
Sample Flag:	Not Reported	Sample Date:	6/21/2000
Constituent Value:	220.0	Confidence (+ or -):	Not Reported
Storet Code Description:	ALKALINITY, FIELD, DISSOLVED AS CaCO3		
Constituent Name:	ALKLNITY	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	71870
Sample Flag:	Not Reported	Sample Date:	6/21/2000
Constituent Value:	0.0700	Confidence (+ or -):	Not Reported
Storet Code Description:	BROMIDE, DISSOLVED, (MG/L AS BR)		
Constituent Name:	BROMIDE	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00631
Sample Flag:	Not Reported	Sample Date:	6/21/2000
Constituent Value:	1.88	Confidence (+ or -):	Not Reported
Storet Code Description:	NITRITE PLUS NITRATE, DISSOLVED (MG/L AS N)		
Constituent Name:	NO2+NO3	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	01106
Sample Flag:	<	Sample Date:	6/21/2000
Constituent Value:	4	Confidence (+ or -):	Not Reported
Storet Code Description:	ALUMINUM, DISSOLVED (UG/L AS AL)		
Constituent Name:	ALUMINUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01095
Sample Flag:	<	Sample Date:	6/21/2000
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	ANTIMONY, DISSOLVED (UG/L AS SB)		
Constituent Name:	ANTIMONY	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01000
Sample Flag:	<	Sample Date:	6/21/2000
Constituent Value:	2	Confidence (+ or -):	Not Reported
Storet Code Description:	ARSENIC, DISSOLVED (UG/L AS AS)		
Constituent Name:	ARSENIC	Unit of Measurement:	UG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Storet Number:	01005
Sample Flag:	Not Reported	Sample Date:	6/21/2000
Constituent Value:	34.0	Confidence (+ or -):	Not Reported
Storet Code Description:	BARIUM, DISSOLVED (UG/L AS BA)		
Constituent Name:	BARIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01010
Sample Flag:	<	Sample Date:	6/21/2000
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	BERYLLIUM, DISSOLVED (UG/L AS BE)		
Constituent Name:	BERYLLIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01020
Sample Flag:	Not Reported	Sample Date:	6/21/2000
Constituent Value:	51.5	Confidence (+ or -):	Not Reported
Storet Code Description:	BORON, DISSOLVED (UG/L AS B)		
Constituent Name:	BORON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01035
Sample Flag:	<	Sample Date:	6/21/2000
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	COBALT, DISSOLVED (UG/L AS CO)		
Constituent Name:	COBALT	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01040
Sample Flag:	<	Sample Date:	6/21/2000
Constituent Value:	2	Confidence (+ or -):	Not Reported
Storet Code Description:	COPPER, DISSOLVED (UG/L AS CU)		
Constituent Name:	COPPER	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01046
Sample Flag:	<	Sample Date:	6/21/2000
Constituent Value:	50	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, DISSOLVED (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01049
Sample Flag:	<	Sample Date:	6/21/2000
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	LEAD, DISSOLVED (UG/L AS PB)		
Constituent Name:	LEAD	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01130
Sample Flag:	Not Reported	Sample Date:	6/21/2000
Constituent Value:	4.89	Confidence (+ or -):	Not Reported
Storet Code Description:	LITHIUM, DISSOLVED (UG/L AS LI)		
Constituent Name:	LITHIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01056
Sample Flag:	<	Sample Date:	6/21/2000
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, DISSOLVED (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01060
Sample Flag:	<	Sample Date:	6/21/2000
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	MOLYBDENUM, DISSOLVED, UG/L		
Constituent Name:	MOLY	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01065
Sample Flag:	<	Sample Date:	6/21/2000
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	NICKEL, DISSOLVED (UG/L AS NI)		
Constituent Name:	NICKEL	Unit of Measurement:	UG/L

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Sample Number:	1	Storet Number:	01145
Sample Flag:	<	Sample Date:	6/21/2000
Constituent Value:	4	Confidence (+ or -):	Not Reported
Storet Code Description:	SELENIUM, DISSOLVED (UG/L AS SE)		
Constituent Name:	SELENIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01080
Sample Flag:	Not Reported	Sample Date:	6/21/2000
Constituent Value:	580	Confidence (+ or -):	Not Reported
Storet Code Description:	STRONTIUM, DISSOLVED (UG/L AS SR)		
Constituent Name:	STRONTIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01057
Sample Flag:	<	Sample Date:	6/21/2000
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	THALLIUM, DISSOLVED (UG/L AS TL)		
Constituent Name:	THALLIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01085
Sample Flag:	Not Reported	Sample Date:	6/21/2000
Constituent Value:	3.73	Confidence (+ or -):	Not Reported
Storet Code Description:	VANADIUM, DISSOLVED (UG/L AS V)		
Constituent Name:	VANADIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01090
Sample Flag:	<	Sample Date:	6/21/2000
Constituent Value:	4	Confidence (+ or -):	Not Reported
Storet Code Description:	ZINC, DISSOLVED (UG/L AS ZN)		
Constituent Name:	ZINC	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01025
Sample Flag:	<	Sample Date:	6/21/2000
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	CADMIUM, DISSOLVED (UG/L AS CD)		
Constituent Name:	CADMIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01030
Sample Flag:	Not Reported	Sample Date:	6/21/2000
Constituent Value:	4.56	Confidence (+ or -):	Not Reported
Storet Code Description:	CHROMIUM, DISSOLVED (UG/L AS CR)		
Constituent Name:	CHROMIUM	Unit of Measurement:	UG/L

Remarks:

Tested at 7638 gpm with 2 ft draw- down in 1957. Cemented to 568 feet.

**17
South
1/2 - 1 Mile
Higher**

FRDS PWS TX1330079

PWS ID:	TX1330079	PWS Status:	Active
Date Initiated:	7706	Date Deactivated:	Not Reported
PWS Name:	HILL RIVER COUNTRY EST-FRANK G 3015 SAN PEDRO, STE 201 SAN ANTONIO, TX 78212		

Addressee / Facility: Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Facility Latitude:	29 28 42	Facility Longitude:	098 29 13
City Served:	Not Reported		
Treatment Class:	Untreated	Population:	00000030
PWS currently has or had major violation(s) or enforcement:		No	

**E18
North
1/2 - 1 Mile
Higher**

TX WELLS S000731

GIS Id:	10000734	Pws Id:	0150018
Water Source:	G0150018Z	Owner:	BASIN #7
Hydrologic code:	12100301	Stream Segment:	Not Reported
Waterbody:	Not Reported	State wellno:	6837101
Welldepth:	1005	Depth agency:	Water Well driller
Depth source:	Recorded on driller's log or state well report		
Aquifer:	218EBFZA		
Drilldate:	19670529	Welldata:	not reported
Elevatn:	725	Elevmeth:	Topographic Map Interpolation
V_datum:	1929 North American Datum	Aquifer method:	Well Schedule
Latitude:	292954	Longitude:	982917
Accuracy:	Fair - Surveyor had to use a vehicle odometer and/or pacing to locate the water source. Plotted location may not be within 100 ft. (30 m) of the actual location.		
Collecting Org:	Texas Natural Resource Conservation Commission		
Location Meth:	Map interpolation, via digital source, Method 1: Water source location was manually plotted on USGS 7.5-minute topographic quadrangle and subsequently digitized.		
Horiz datum:	North American Datum 1927 (NAD27)		
Mapscale:	7.5' X 7.5' (1:24,000)	Fips:	029
Quadnum:	2998-133	Collection date:	Not Reported
Latitude:	29.4983	Longitude:	98.4881
Initials:	JSA	Last changed:	07/11/1995 00:00:00
Remarks:	Not Reported	Status:	Operating (Active)
Description:	not reported	Elevation:	221

**19
North
1/2 - 1 Mile
Higher**

TX WELLS B6837101

St_well_nu:	6837101	Cnty_code:	Bexar
Basin:	SAN ANTONIO RIVER	Zone:	1
Reg_num:	11	Prev_well_:	Not Reported
Longitude:	982919	Latitude:	292957
Owner:	San Antonio Water Sys. Basin Station #7		
Driller:	Layne-Texas Co.		
Coord_src:	1		
Aqu_code:	EDWARDS AND ASSOCIATED LIMESTONES - (BALCONES FAULT ZONE AQUIFER)		
Aqu_id1:	11	Aqu_id2:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Aqu_id3:	Not Reported	Lsd_elev:	725
Meas_elev:	M	Use_cd_eco:	764200
Date_drill:	04201967	Well_typ:	W
Well_depth:	995	Src_depth:	Driller's log/Well report
Type_lift:	Turbine Pump	Type of Power:	Electric Motor
Horsepower:	400.00	Primary use:	Public Supply
Secondary use:	Not Reported	Tert use:	Not Reported
Avg Level:	N	Water quality:	Y
Water Logs Available:	Drillers,Electric		
Other data avail:	Not Reported		
Date collected:	05231996	Reporting agency:	Other State Agencies
Well_sched:	Y	Const method:	hydraulic rotary
Completion:	open hole	Case_mater:	Steel
Screen_mat:	not reported	Lith_log:	Not Reported
Int_lith_b:	Not Reported	Lith_date:	Not Reported

Water Quality Information::

Sample Number:	1	Sample Date:	5/11/1967
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	157.0
Magnesium Flag:	Not Reported	Magnesium MGL:	21.0
Sodium Flag:	Not Reported	Sodium MGL:	8
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	300.21
Sulfate Flag:	Not Reported	Sulfate MGL:	30.0
Chloride Flag:	Not Reported	Chloride MGL:	157.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.3
Nitrate Flag:	Not Reported	Nitrate MGL:	6.0
pH Flag:	Not Reported	pH:	7.5
Total Dissolved Fluids:	526	Total Hardness:	478
Phenol Alkalinity:	0.0	Total Alkalinity:	246.0
SAR:	0.16	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	1110
Percent Sodium:	3		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		
Lab Name:	Texas Department of Health		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Sample Date:	6/3/1971
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	U	Collection Agency:	Not Reported
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	Not Reported
Magnesium Flag:	Not Reported	Magnesium MGL:	Not Reported
Sodium Flag:	Not Reported	Sodium MGL:	7.2
Potassium Flag:	Not Reported	Potassium MGL:	1.4
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	258.08
Sulfate Flag:	Not Reported	Sulfate MGL:	33.0
Chloride Flag:	Not Reported	Chloride MGL:	14.0
Fluoride Flag:	Not Reported	Fluoride MGL:	Not Reported
Nitrate Flag:	Not Reported	Nitrate MGL:	7.1
pH Flag:	Not Reported	pH:	7.7
Total Dissolved Fluids:	Not Reported	Total Hardness:	Not Reported
Phenol Alkalinity:	0.0	Total Alkalinity:	211.48
SAR:	Not Reported	RSC:	Not Reported
Specific Conductance:	Not Reported	Spec. Conductance Flag:	501
Percent Sodium:	Not Reported		
Collection Remark:	Not Reported		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		
Lab Name:	U.S. Geological Survey Lab		

Sample Number:	1	Sample Date:	9/4/1973
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	77.0
Magnesium Flag:	Not Reported	Magnesium MGL:	17.0
Sodium Flag:	Not Reported	Sodium MGL:	8
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	269.7
Sulfate Flag:	Not Reported	Sulfate MGL:	32.0
Chloride Flag:	Not Reported	Chloride MGL:	14.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.3
Nitrate Flag:	Not Reported	Nitrate MGL:	7.0
pH Flag:	Not Reported	pH:	7.8
Total Dissolved Fluids:	287	Total Hardness:	261
Phenol Alkalinity:	0.0	Total Alkalinity:	221.0
SAR:	0.21	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	560
Percent Sodium:	6		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		
Lab Name:	Texas Department of Health		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Sample Date:	12/5/1973 0947
Temperature (C):	23	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	Not Reported
Silica Flag:	Not Reported	Silica MGL:	12.0
Calcium Flag:	Not Reported	Calcium MGL:	78.0
Magnesium Flag:	Not Reported	Magnesium MGL:	18.0
Sodium Flag:	Not Reported	Sodium MGL:	8
Potassium Flag:	Not Reported	Potassium MGL:	1.4
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	274.08
Sulfate Flag:	Not Reported	Sulfate MGL:	33.0
Chloride Flag:	Not Reported	Chloride MGL:	14.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.2
Nitrate Flag:	Not Reported	Nitrate MGL:	1.5
pH Flag:	Not Reported	pH:	7.3
Total Dissolved Fluids:	300	Total Hardness:	268
Phenol Alkalinity:	0.0	Total Alkalinity:	224.59
SAR:	0.21	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	489
Percent Sodium:	6		
Collection Remark:	Not Reported		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		
Lab Name:	U.S. Geological Survey Lab		

Sample Number:	1	Sample Date:	6/26/1974
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	76.0
Magnesium Flag:	Not Reported	Magnesium MGL:	19.0
Sodium Flag:	Not Reported	Sodium MGL:	8
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	272.14
Sulfate Flag:	Not Reported	Sulfate MGL:	31.0
Chloride Flag:	Not Reported	Chloride MGL:	13.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.2
Nitrate Flag:	Not Reported	Nitrate MGL:	8.0
pH Flag:	Not Reported	pH:	8.0
Total Dissolved Fluids:	289	Total Hardness:	267
Phenol Alkalinity:	0.0	Total Alkalinity:	223.0
SAR:	0.21	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	564
Percent Sodium:	6		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		
Lab Name:	Texas Department of Health		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Sample Date:	6/14/1977 1000
Temperature (C):	23	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	Not Reported
Silica Flag:	Not Reported	Silica MGL:	12.0
Calcium Flag:	Not Reported	Calcium MGL:	78.0
Magnesium Flag:	Not Reported	Magnesium MGL:	18.0
Sodium Flag:	Not Reported	Sodium MGL:	8.8
Potassium Flag:	Not Reported	Potassium MGL:	1.3
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	270.07
Sulfate Flag:	Not Reported	Sulfate MGL:	34.0
Chloride Flag:	Not Reported	Chloride MGL:	16.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.2
Nitrate Flag:	Not Reported	Nitrate MGL:	6.2
pH Flag:	Not Reported	pH:	7.0
Total Dissolved Fluids:	307	Total Hardness:	268
Phenol Alkalinity:	0.0	Total Alkalinity:	221.31
SAR:	0.24	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	532
Percent Sodium:	6		
Collection Remark:	Not Reported		
Reliability Remark:	Sample in accordance with the TWDB's (A Field Manual for Ground-Water Sampling, 1990). Samples are collected when temperature, conductivity, and pH have stabilized. The sample was filtered and field tested for alkalinity. Samples are preserved as applicable, kept chilled, and delivered to the lab. Holding times are honored. Organic sub-samples are not filtered.		
Lab Name:	U.S. Geological Survey Lab		

Sample Number:	1	Sample Date:	8/24/1978
Temperature (C):	Not Reported	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	RAW SUPPLY
Silica Flag:	Not Reported	Silica MGL:	Not Reported
Calcium Flag:	Not Reported	Calcium MGL:	76.0
Magnesium Flag:	Not Reported	Magnesium MGL:	18.0
Sodium Flag:	Not Reported	Sodium MGL:	9
Potassium Flag:	Not Reported	Potassium MGL:	Not Reported
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	264.82
Sulfate Flag:	Not Reported	Sulfate MGL:	36.0
Chloride Flag:	Not Reported	Chloride MGL:	15.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.2
Nitrate Flag:	Not Reported	Nitrate MGL:	8.0
pH Flag:	Not Reported	pH:	8.2
Total Dissolved Fluids:	292	Total Hardness:	263
Phenol Alkalinity:	0.0	Total Alkalinity:	217.0
SAR:	0.24	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	560
Percent Sodium:	6		
Collection Remark:	raw supply		
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored		
Lab Name:	Texas Department of Health		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number: 1	Sample Date: 7/30/1979 1340
Temperature (C): 23	Sampled Aquifer Code: Not Reported
Top of sampled interval: Not Reported	Bottom of sampled interval: Not Reported
Balanced/unbal Analysis: B	Collection Agency: Not Reported
Silica Flag: Not Reported	Silica MGL: 12.0
Calcium Flag: Not Reported	Calcium MGL: 73.0
Magnesium Flag: Not Reported	Magnesium MGL: 16.0
Sodium Flag: Not Reported	Sodium MGL: 8.4
Potassium Flag: Not Reported	Potassium MGL: 1.4
Strontium Flag: Not Reported	Strontium MGL: Not Reported
Carbonate MGL: 0.0	Bicarbonate MGL: 276.08
Sulfate Flag: Not Reported	Sulfate MGL: 33.0
Chloride Flag: Not Reported	Chloride MGL: 17.0
Fluoride Flag: Not Reported	Fluoride MGL: 0.2
Nitrate Flag: Not Reported	Nitrate MGL: 8.2
pH Flag: Not Reported	pH: Not Reported
Total Dissolved Fluids: 304	Total Hardness: 247
Phenol Alkalinity: 0.0	Total Alkalinity: 226.23
SAR: 0.22	RSC: 0.0
Specific Conductance: Not Reported	Spec. Conductance Flag: 550
Percent Sodium: 6	
Collection Remark: Not Reported	
Reliability Remark:	Sample in accordance with the TWDB's (A Field Manual for Ground-Water Sampling, 1990). Samples are collected when temperature, conductivity, and pH have stabilized. The sample was filtered and field tested for alkalinity. Samples are preserved as applicable, kept chilled, and delivered to the lab. Holding times are honored. Organic sub-samples are not filtered.

Lab Name: U.S. Geological Survey Lab

Sample Number: 1	Sample Date: 5/14/1980
Temperature (C): Not Reported	Sampled Aquifer Code: Not Reported
Top of sampled interval: Not Reported	Bottom of sampled interval: Not Reported
Balanced/unbal Analysis: B	Collection Agency: RAW SUPPLY
Silica Flag: Not Reported	Silica MGL: Not Reported
Calcium Flag: Not Reported	Calcium MGL: 78.0
Magnesium Flag: Not Reported	Magnesium MGL: 17.0
Sodium Flag: Not Reported	Sodium MGL: 9
Potassium Flag: Not Reported	Potassium MGL: Not Reported
Strontium Flag: Not Reported	Strontium MGL: Not Reported
Carbonate MGL: 0.0	Bicarbonate MGL: 275.8
Sulfate Flag: Not Reported	Sulfate MGL: 33.0
Chloride Flag: Not Reported	Chloride MGL: 15.0
Fluoride Flag: Not Reported	Fluoride MGL: 0.2
Nitrate Flag: Not Reported	Nitrate MGL: 7.7
pH Flag: Not Reported	pH: 7.7
Total Dissolved Fluids: 295	Total Hardness: 264
Phenol Alkalinity: 0.0	Total Alkalinity: 226.0
SAR: 0.24	RSC: 0.0
Specific Conductance: Not Reported	Spec. Conductance Flag: 580
Percent Sodium: 6	
Collection Remark: raw supply	
Reliability Remark:	Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored

Lab Name: Texas Department of Health

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Sample Date:	8/5/1980
Temperature (C):	23	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	Not Reported
Silica Flag:	Not Reported	Silica MGL:	13.0
Calcium Flag:	Not Reported	Calcium MGL:	77.0
Magnesium Flag:	Not Reported	Magnesium MGL:	17.0
Sodium Flag:	Not Reported	Sodium MGL:	9
Potassium Flag:	Not Reported	Potassium MGL:	1.3
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	280.08
Sulfate Flag:	Not Reported	Sulfate MGL:	31.0
Chloride Flag:	Not Reported	Chloride MGL:	15.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.2
Nitrate Flag:	Not Reported	Nitrate MGL:	7.97
pH Flag:	Not Reported	pH:	7.3
Total Dissolved Fluids:	309	Total Hardness:	261
Phenol Alkalinity:	0.0	Total Alkalinity:	229.51
SAR:	0.24	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	Not Reported
Percent Sodium:	6		
Collection Remark:	Not Reported		
Reliability Remark:	Chemical analysis taken from a report. Sample collection and preservation procedures unknown		
Lab Name:	U.S. Geological Survey Lab		

Sample Number:	1	Sample Date:	9/2/1980
Temperature (C):	23	Sampled Aquifer Code:	Not Reported
Top of sampled interval:	Not Reported	Bottom of sampled interval:	Not Reported
Balanced/unbal Analysis:	B	Collection Agency:	Not Reported
Silica Flag:	Not Reported	Silica MGL:	12.0
Calcium Flag:	Not Reported	Calcium MGL:	77.0
Magnesium Flag:	Not Reported	Magnesium MGL:	17.0
Sodium Flag:	Not Reported	Sodium MGL:	9
Potassium Flag:	Not Reported	Potassium MGL:	1.4
Strontium Flag:	Not Reported	Strontium MGL:	Not Reported
Carbonate MGL:	0.0	Bicarbonate MGL:	270.07
Sulfate Flag:	Not Reported	Sulfate MGL:	31.0
Chloride Flag:	Not Reported	Chloride MGL:	13.0
Fluoride Flag:	Not Reported	Fluoride MGL:	0.3
Nitrate Flag:	Not Reported	Nitrate MGL:	7.53
pH Flag:	Not Reported	pH:	7.0
Total Dissolved Fluids:	301	Total Hardness:	261
Phenol Alkalinity:	0.0	Total Alkalinity:	221.31
SAR:	0.24	RSC:	0.0
Specific Conductance:	Not Reported	Spec. Conductance Flag:	Not Reported
Percent Sodium:	6		
Collection Remark:	Not Reported		
Reliability Remark:	Chemical analysis taken from a report. Sample collection and preservation procedures unknown		
Lab Name:	U.S. Geological Survey Lab		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number: 1	Sample Date: 7/27/1981
Temperature (C): 23	Sampled Aquifer Code: Not Reported
Top of sampled interval: Not Reported	Bottom of sampled interval: Not Reported
Balanced/unbal Analysis: B	Collection Agency: Not Reported
Silica Flag: Not Reported	Silica MGL: Not Reported
Calcium Flag: Not Reported	Calcium MGL: 66.0
Magnesium Flag: Not Reported	Magnesium MGL: 16.0
Sodium Flag: Not Reported	Sodium MGL: 9
Potassium Flag: Not Reported	Potassium MGL: 1.1
Strontium Flag: Not Reported	Strontium MGL: Not Reported
Carbonate MGL: 0.0	Bicarbonate MGL: 281.0
Sulfate Flag: Not Reported	Sulfate MGL: 31.0
Chloride Flag: Not Reported	Chloride MGL: 13.0
Fluoride Flag: Not Reported	Fluoride MGL: 0.5
Nitrate Flag: Not Reported	Nitrate MGL: 8.41
pH Flag: Not Reported	pH: 7.0
Total Dissolved Fluids: 283	Total Hardness: 231
Phenol Alkalinity: 0.0	Total Alkalinity: 230.33
SAR: 0.26	RSC: 0.0
Specific Conductance: Not Reported	Spec. Conductance Flag: Not Reported
Percent Sodium: 7	
Collection Remark: Not Reported	
Reliability Remark: RELIABILITY UNKNOWN, NOT AVAILABLE, OR NOT YET ENTERED	
Lab Name: Not Reported	
Sample Number: 1	Sample Date: 5/24/1984
Temperature (C): Not Reported	Sampled Aquifer Code: Not Reported
Top of sampled interval: Not Reported	Bottom of sampled interval: Not Reported
Balanced/unbal Analysis: B	Collection Agency: RAW SUPPLY
Silica Flag: Not Reported	Silica MGL: Not Reported
Calcium Flag: Not Reported	Calcium MGL: 80.0
Magnesium Flag: Not Reported	Magnesium MGL: 14.0
Sodium Flag: Not Reported	Sodium MGL: 9
Potassium Flag: Not Reported	Potassium MGL: Not Reported
Strontium Flag: Not Reported	Strontium MGL: Not Reported
Carbonate MGL: 0.0	Bicarbonate MGL: 272.14
Sulfate Flag: Not Reported	Sulfate MGL: 30.0
Chloride Flag: Not Reported	Chloride MGL: 14.0
Fluoride Flag: Not Reported	Fluoride MGL: 0.2
Nitrate Flag: Not Reported	Nitrate MGL: 7.49
pH Flag: Not Reported	pH: 7.7
Total Dissolved Fluids: 288	Total Hardness: 257
Phenol Alkalinity: 0.0	Total Alkalinity: 223.0
SAR: 0.24	RSC: 0.0
Specific Conductance: Not Reported	Spec. Conductance Flag: 576
Percent Sodium: 7	
Collection Remark: raw supply	
Reliability Remark: Sample collected from well sufficiently pumped but not filtered or preserved. Holding time probably not honored	
Lab Name: Texas Department of Health	

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number: 1	Sample Date: 8/27/1998 1010
Temperature (C): 23	Sampled Aquifer Code: Not Reported
Top of sampled interval: Not Reported	Bottom of sampled interval: Not Reported
Balanced/unbal Analysis: B	Collection Agency: Not Reported
Silica Flag: Not Reported	Silica MGL: 12.8
Calcium Flag: Not Reported	Calcium MGL: 76.5
Magnesium Flag: Not Reported	Magnesium MGL: 16.7
Sodium Flag: Not Reported	Sodium MGL: 10
Potassium Flag: Not Reported	Potassium MGL: 1.24
Strontium Flag: Not Reported	Strontium MGL: 0.53
Carbonate MGL: 0.0	Bicarbonate MGL: 270.92
Sulfate Flag: Not Reported	Sulfate MGL: 32.6
Chloride Flag: Not Reported	Chloride MGL: 15.9
Fluoride Flag: Not Reported	Fluoride MGL: 0.16
Nitrate Flag: Not Reported	Nitrate MGL: 5.67
pH Flag: Not Reported	pH: 7.3
Total Dissolved Fluids: 305	Total Hardness: 260
Phenol Alkalinity: 0.0	Total Alkalinity: 222.0
SAR: 0.27	RSC: 0.0
Specific Conductance: Not Reported	Spec. Conductance Flag: 539
Percent Sodium: 7	
Collection Remark: Not Reported	
Reliability Remark:	Sample in accordance with the TWDB's (A Field Manual for Ground-Water Sampling, 1990). Samples are collected when temperature, conductivity, and pH have stabilized. The sample was filtered and field tested for alkalinity. Samples are preserved as applicable, kept chilled, and delivered to the lab. Holding times are honored. Organic sub-samples are not filtered.
Lab Name:	Lower Colorado River Authority

Well Casing Information::

Indicator	Diameter	Top of Interval	Bottom of Interval
Open Hole	Not Reported	566	1005

Infrequent Constituent Information::

Sample Number: 1	Storet Number: 01045
Sample Flag: Not Reported	Sample Date: 5/11/1967
Constituent Value: 60.	Confidence (+ or -): Not Reported
Storet Code Description: IRON, TOTAL (UG/L AS FE)	
Constituent Name: IRON	Unit of Measurement: UG/L
Sample Number: 1	Storet Number: 01055
Sample Flag: <	Sample Date: 5/11/1967
Constituent Value: 50.	Confidence (+ or -): Not Reported
Storet Code Description: MANGANESE, TOTAL (UG/L AS MN)	
Constituent Name: MANGNESE	Unit of Measurement: UG/L
Sample Number: 1	Storet Number: 00900
Sample Flag: Not Reported	Sample Date: 6/3/1971
Constituent Value: 250	Confidence (+ or -): Not Reported
Storet Code Description: HARDNESS, TOTAL (MG/L AS CaCO3)	
Constituent Name: TOT HARD	Unit of Measurement: MG/L
Sample Number: 1	Storet Number: 00902
Sample Flag: Not Reported	Sample Date: 6/3/1971
Constituent Value: 42.	Confidence (+ or -): Not Reported
Storet Code Description: HARDNESS, NON-CARBONATE (MG/L AS CaCO3)	
Constituent Name: NC HARD	Unit of Measurement: MG/L
Sample Number: 1	Storet Number: 01002
Sample Flag: <	Sample Date: 6/3/1971
Constituent Value: 1.	Confidence (+ or -): Not Reported
Storet Code Description: ARSENIC, TOTAL (UG/L AS AS)	
Constituent Name: ARSENIC	Unit of Measurement: UG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Storet Number:	01020
Sample Flag:	Not Reported	Sample Date:	6/3/1971
Constituent Value:	80.	Confidence (+ or -):	Not Reported
Storet Code Description:	BORON, DISSOLVED (UG/L AS B)		
Constituent Name:	BORON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01042
Sample Flag:	Not Reported	Sample Date:	6/3/1971
Constituent Value:	2.	Confidence (+ or -):	Not Reported
Storet Code Description:	COPPER, TOTAL (UG/L AS CU)		
Constituent Name:	COPPER	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	Not Reported	Sample Date:	6/3/1971
Constituent Value:	10.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01051
Sample Flag:	<	Sample Date:	6/3/1971
Constituent Value:	1.	Confidence (+ or -):	Not Reported
Storet Code Description:	LEAD, TOTAL (UG/L AS PB)		
Constituent Name:	LEAD	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01092
Sample Flag:	<	Sample Date:	6/3/1971
Constituent Value:	10.	Confidence (+ or -):	Not Reported
Storet Code Description:	ZINC, TOTAL (UG/L AS ZN)		
Constituent Name:	ZINC	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01106
Sample Flag:	Not Reported	Sample Date:	6/3/1971
Constituent Value:	10.	Confidence (+ or -):	Not Reported
Storet Code Description:	ALUMINUM, DISSOLVED (UG/L AS AL)		
Constituent Name:	ALUMINUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	71886
Sample Flag:	Not Reported	Sample Date:	6/3/1971
Constituent Value:	.03	Confidence (+ or -):	Not Reported
Storet Code Description:	PHOSPHORUS, TOTAL AS PO4 (MG/L)		
Constituent Name:	TOTAL P	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	71890
Sample Flag:	<	Sample Date:	6/3/1971
Constituent Value:	0.5	Confidence (+ or -):	Not Reported
Storet Code Description:	MERCURY, DISSOLVED (UG/L AS HG)		
Constituent Name:	MERCURY	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	<	Sample Date:	9/4/1973
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	9/4/1973
Constituent Value:	50.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	00615
Sample Flag:	Not Reported	Sample Date:	12/5/1973
Constituent Value:	0.00	Confidence (+ or -):	Not Reported
Storet Code Description:	NITRITE NITROGEN, TOTAL (MG/L AS N)		
Constituent Name:	NO2-N	Unit of Measurement:	MG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Storet Number:	00620
Sample Flag:	Not Reported	Sample Date:	12/5/1973
Constituent Value:	1.5	Confidence (+ or -):	Not Reported
Storet Code Description:	NITRATE NITROGEN, TOTAL (MG/L AS N)		
Constituent Name:	NITRATE	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00902
Sample Flag:	Not Reported	Sample Date:	12/5/1973
Constituent Value:	44.	Confidence (+ or -):	Not Reported
Storet Code Description:	HARDNESS, NON-CARBONATE (MG/L AS CaCO3)		
Constituent Name:	NC HARD	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	01000
Sample Flag:	Not Reported	Sample Date:	12/5/1973
Constituent Value:	1.	Confidence (+ or -):	Not Reported
Storet Code Description:	ARSENIC, DISSOLVED (UG/L AS AS)		
Constituent Name:	ARSENIC	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01040
Sample Flag:	Not Reported	Sample Date:	12/5/1973
Constituent Value:	2.	Confidence (+ or -):	Not Reported
Storet Code Description:	COPPER, DISSOLVED (UG/L AS CU)		
Constituent Name:	COPPER	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01049
Sample Flag:	<	Sample Date:	12/5/1973
Constituent Value:	1.	Confidence (+ or -):	Not Reported
Storet Code Description:	LEAD, DISSOLVED (UG/L AS Pb)		
Constituent Name:	LEAD	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01090
Sample Flag:	<	Sample Date:	12/5/1973
Constituent Value:	3.	Confidence (+ or -):	Not Reported
Storet Code Description:	ZINC, DISSOLVED (UG/L AS ZN)		
Constituent Name:	ZINC	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	71886
Sample Flag:	Not Reported	Sample Date:	12/5/1973
Constituent Value:	.04	Confidence (+ or -):	Not Reported
Storet Code Description:	PHOSPHORUS, TOTAL AS PO4 (MG/L)		
Constituent Name:	TOTAL P	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	71890
Sample Flag:	<	Sample Date:	12/5/1973
Constituent Value:	.2	Confidence (+ or -):	Not Reported
Storet Code Description:	MERCURY, DISSOLVED (UG/L AS Hg)		
Constituent Name:	MERCURY	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	<	Sample Date:	6/26/1974
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS Fe)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	6/26/1974
Constituent Value:	50.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS Mn)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	00600
Sample Flag:	Not Reported	Sample Date:	6/14/1977
Constituent Value:	1.4	Confidence (+ or -):	Not Reported
Storet Code Description:	NITROGEN, TOTAL (MG/L AS N)		
Constituent Name:	TOTAL N	Unit of Measurement:	MG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Storet Number:	00605
Sample Flag:	Not Reported	Sample Date:	6/14/1977
Constituent Value:	0.00	Confidence (+ or -):	Not Reported
Storet Code Description:	NITROGEN, ORGANIC, TOTAL (MG/L AS N)		
Constituent Name:	ORG N	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00610
Sample Flag:	Not Reported	Sample Date:	6/14/1977
Constituent Value:	0.03	Confidence (+ or -):	Not Reported
Storet Code Description:	NITROGEN, AMMONIA, TOTAL (MG/L AS N)		
Constituent Name:	NH3-N	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00615
Sample Flag:	Not Reported	Sample Date:	6/14/1977
Constituent Value:	0.01	Confidence (+ or -):	Not Reported
Storet Code Description:	NITRITE NITROGEN, TOTAL (MG/L AS N)		
Constituent Name:	NO2-N	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00620
Sample Flag:	Not Reported	Sample Date:	6/14/1977
Constituent Value:	1.4	Confidence (+ or -):	Not Reported
Storet Code Description:	NITRATE NITROGEN, TOTAL (MG/L AS N)		
Constituent Name:	NITRATE	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00625
Sample Flag:	Not Reported	Sample Date:	6/14/1977
Constituent Value:	0.00	Confidence (+ or -):	Not Reported
Storet Code Description:	NITROGEN, KJELDAHL, TOTAL (MG/L AS N)		
Constituent Name:	TOT KJEL	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00630
Sample Flag:	Not Reported	Sample Date:	6/14/1977
Constituent Value:	1.4	Confidence (+ or -):	Not Reported
Storet Code Description:	NITRITE PLUS NITRATE, TOTAL (MG/L AS N)		
Constituent Name:	NO2&NO3	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00665
Sample Flag:	Not Reported	Sample Date:	6/14/1977
Constituent Value:	0.03	Confidence (+ or -):	Not Reported
Storet Code Description:	PHOSPHORUS, TOTAL (MG/L AS P)		
Constituent Name:	PHOS-TOT	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00681
Sample Flag:	Not Reported	Sample Date:	6/14/1977
Constituent Value:	0.3	Confidence (+ or -):	Not Reported
Storet Code Description:	CARBON, DISSOLVED ORGANIC (MG/L AS C)		
Constituent Name:	CARBON	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00902
Sample Flag:	Not Reported	Sample Date:	6/14/1977
Constituent Value:	47.	Confidence (+ or -):	Not Reported
Storet Code Description:	HARDNESS, NON-CARBONATE (MG/L AS CaCO3)		
Constituent Name:	NC HARD	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	01000
Sample Flag:	<	Sample Date:	6/14/1977
Constituent Value:	1.	Confidence (+ or -):	Not Reported
Storet Code Description:	ARSENIC, DISSOLVED (UG/L AS AS)		
Constituent Name:	ARSENIC	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01005
Sample Flag:	<	Sample Date:	6/14/1977
Constituent Value:	10.	Confidence (+ or -):	Not Reported
Storet Code Description:	BARIUM, DISSOLVED (UG/L AS BA)		
Constituent Name:	BARIUM	Unit of Measurement:	UG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Storet Number:	01025
Sample Flag:	<	Sample Date:	6/14/1977
Constituent Value:	1.	Confidence (+ or -):	Not Reported
Storet Code Description:	CADMIUM, DISSOLVED (UG/L AS CD)		
Constituent Name:	CADMIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01030
Sample Flag:	Not Reported	Sample Date:	6/14/1977
Constituent Value:	10.	Confidence (+ or -):	Not Reported
Storet Code Description:	CHROMIUM, DISSOLVED (UG/L AS CR)		
Constituent Name:	CHROMIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01040
Sample Flag:	Not Reported	Sample Date:	6/14/1977
Constituent Value:	1.	Confidence (+ or -):	Not Reported
Storet Code Description:	COPPER, DISSOLVED (UG/L AS CU)		
Constituent Name:	COPPER	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01046
Sample Flag:	Not Reported	Sample Date:	6/14/1977
Constituent Value:	10.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, DISSOLVED (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01049
Sample Flag:	Not Reported	Sample Date:	6/14/1977
Constituent Value:	2.	Confidence (+ or -):	Not Reported
Storet Code Description:	LEAD, DISSOLVED (UG/L AS PB)		
Constituent Name:	LEAD	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01056
Sample Flag:	<	Sample Date:	6/14/1977
Constituent Value:	1.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, DISSOLVED (UG/L AS MN)		
Constituent Name:	MANGANESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01075
Sample Flag:	<	Sample Date:	6/14/1977
Constituent Value:	1.	Confidence (+ or -):	Not Reported
Storet Code Description:	SILVER, DISSOLVED (UG/L AS AG)		
Constituent Name:	SILVER	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01090
Sample Flag:	<	Sample Date:	6/14/1977
Constituent Value:	10.	Confidence (+ or -):	Not Reported
Storet Code Description:	ZINC, DISSOLVED (UG/L AS ZN)		
Constituent Name:	ZINC	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01145
Sample Flag:	Not Reported	Sample Date:	6/14/1977
Constituent Value:	1.	Confidence (+ or -):	Not Reported
Storet Code Description:	SELENIUM, DISSOLVED (UG/L AS SE)		
Constituent Name:	SELENIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	71890
Sample Flag:	Not Reported	Sample Date:	6/14/1977
Constituent Value:	0.0	Confidence (+ or -):	Not Reported
Storet Code Description:	MERCURY, DISSOLVED (UG/L AS HG)		
Constituent Name:	MERCURY	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	<	Sample Date:	8/24/1978
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	8/24/1978
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	00600
Sample Flag:	Not Reported	Sample Date:	7/30/1979
Constituent Value:	1.9	Confidence (+ or -):	Not Reported
Storet Code Description:	NITROGEN, TOTAL (MG/L AS N)		
Constituent Name:	TOTAL N	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00605
Sample Flag:	Not Reported	Sample Date:	7/30/1979
Constituent Value:	0.14	Confidence (+ or -):	Not Reported
Storet Code Description:	NITROGEN, ORGANIC, TOTAL (MG/L AS N)		
Constituent Name:	ORG N	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00610
Sample Flag:	Not Reported	Sample Date:	7/30/1979
Constituent Value:	0.01	Confidence (+ or -):	Not Reported
Storet Code Description:	NITROGEN, AMMONIA, TOTAL (MG/L AS N)		
Constituent Name:	NH3-N	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00615
Sample Flag:	Not Reported	Sample Date:	7/30/1979
Constituent Value:	0.00	Confidence (+ or -):	Not Reported
Storet Code Description:	NITRITE NITROGEN, TOTAL (MG/L AS N)		
Constituent Name:	NO2-N	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00620
Sample Flag:	Not Reported	Sample Date:	7/30/1979
Constituent Value:	1.7	Confidence (+ or -):	Not Reported
Storet Code Description:	NITRATE NITROGEN, TOTAL (MG/L AS N)		
Constituent Name:	NITRATE	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00625
Sample Flag:	Not Reported	Sample Date:	7/30/1979
Constituent Value:	0.15	Confidence (+ or -):	Not Reported
Storet Code Description:	NITROGEN, KJELDAHL, TOTAL (MG/L AS N)		
Constituent Name:	TOT KJEL	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00630
Sample Flag:	Not Reported	Sample Date:	7/30/1979
Constituent Value:	1.7	Confidence (+ or -):	Not Reported
Storet Code Description:	NITRITE PLUS NITRATE, TOTAL (MG/L AS N)		
Constituent Name:	NO2&NO3	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00665
Sample Flag:	Not Reported	Sample Date:	7/30/1979
Constituent Value:	0.01	Confidence (+ or -):	Not Reported
Storet Code Description:	PHOSPHORUS, TOTAL (MG/L AS P)		
Constituent Name:	PHOS-TOT	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00681
Sample Flag:	Not Reported	Sample Date:	7/30/1979
Constituent Value:	2.3	Confidence (+ or -):	Not Reported
Storet Code Description:	CARBON, DISSOLVED ORGANIC (MG/L AS C)		
Constituent Name:	CARBON	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00902
Sample Flag:	Not Reported	Sample Date:	7/30/1979
Constituent Value:	22.	Confidence (+ or -):	Not Reported
Storet Code Description:	HARDNESS, NON-CARBONATE (MG/L AS CaCO3)		
Constituent Name:	NC HARD	Unit of Measurement:	MG/L

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Sample Number:	1	Storet Number:	01000
Sample Flag:	Not Reported	Sample Date:	7/30/1979
Constituent Value:	1.	Confidence (+ or -):	Not Reported
Storet Code Description:	ARSENIC, DISSOLVED (UG/L AS AS)		
Constituent Name:	ARSENIC	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01005
Sample Flag:	Not Reported	Sample Date:	7/30/1979
Constituent Value:	40.	Confidence (+ or -):	Not Reported
Storet Code Description:	BARIUM, DISSOLVED (UG/L AS BA)		
Constituent Name:	BARIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01025
Sample Flag:	<	Sample Date:	7/30/1979
Constituent Value:	1.	Confidence (+ or -):	Not Reported
Storet Code Description:	CADMIUM, DISSOLVED (UG/L AS CD)		
Constituent Name:	CADMIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01030
Sample Flag:	Not Reported	Sample Date:	7/30/1979
Constituent Value:	10.	Confidence (+ or -):	Not Reported
Storet Code Description:	CHROMIUM, DISSOLVED (UG/L AS CR)		
Constituent Name:	CHROMIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01040
Sample Flag:	Not Reported	Sample Date:	7/30/1979
Constituent Value:	1.	Confidence (+ or -):	Not Reported
Storet Code Description:	COPPER, DISSOLVED (UG/L AS CU)		
Constituent Name:	COPPER	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01046
Sample Flag:	<	Sample Date:	7/30/1979
Constituent Value:	10.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, DISSOLVED (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01049
Sample Flag:	<	Sample Date:	7/30/1979
Constituent Value:	1.	Confidence (+ or -):	Not Reported
Storet Code Description:	LEAD, DISSOLVED (UG/L AS PB)		
Constituent Name:	LEAD	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01056
Sample Flag:	<	Sample Date:	7/30/1979
Constituent Value:	1.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, DISSOLVED (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01075
Sample Flag:	<	Sample Date:	7/30/1979
Constituent Value:	1.	Confidence (+ or -):	Not Reported
Storet Code Description:	SILVER, DISSOLVED (UG/L AS AG)		
Constituent Name:	SILVER	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01090
Sample Flag:	<	Sample Date:	7/30/1979
Constituent Value:	3.	Confidence (+ or -):	Not Reported
Storet Code Description:	ZINC, DISSOLVED (UG/L AS ZN)		
Constituent Name:	ZINC	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01145
Sample Flag:	<	Sample Date:	7/30/1979
Constituent Value:	1.	Confidence (+ or -):	Not Reported
Storet Code Description:	SELENIUM, DISSOLVED (UG/L AS SE)		
Constituent Name:	SELENIUM	Unit of Measurement:	UG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Storet Number:	71870
Sample Flag:	Not Reported	Sample Date:	7/30/1979
Constituent Value:	0.1	Confidence (+ or -):	Not Reported
Storet Code Description:	BROMIDE, DISSOLVED, (MG/L AS BR)		
Constituent Name:	BROMIDE	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	71886
Sample Flag:	Not Reported	Sample Date:	7/30/1979
Constituent Value:	0.03	Confidence (+ or -):	Not Reported
Storet Code Description:	PHOSPHORUS, TOTAL AS PO4 (MG/L)		
Constituent Name:	TOTAL P	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	71890
Sample Flag:	Not Reported	Sample Date:	7/30/1979
Constituent Value:	0.0	Confidence (+ or -):	Not Reported
Storet Code Description:	MERCURY, DISSOLVED (UG/L AS HG)		
Constituent Name:	MERCURY	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	82068
Sample Flag:	Not Reported	Sample Date:	7/30/1979
Constituent Value:	1.0	Confidence (+ or -):	Not Reported
Storet Code Description:	POTASSIUM 40 (K-40), DISSOLVED, PC/L		
Constituent Name:	POTASIUUM	Unit of Measurement:	PC/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	<	Sample Date:	5/14/1980
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	5/14/1980
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01045
Sample Flag:	Not Reported	Sample Date:	5/24/1984
Constituent Value:	30.	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, TOTAL (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01055
Sample Flag:	<	Sample Date:	5/24/1984
Constituent Value:	20.	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, TOTAL (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	00010
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	23	Confidence (+ or -):	Not Reported
Storet Code Description:	TEMPERATURE, WATER (CELCIUS)		
Constituent Name:	WATER	Unit of Measurement:	C
Sample Number:	1	Storet Number:	00090
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	150	Confidence (+ or -):	Not Reported
Storet Code Description:	OXIDATION REDUCTION POTENTIAL (ORP), MILLIVOLTS		
Constituent Name:	REDOX	Unit of Measurement:	MV
Sample Number:	1	Storet Number:	00608
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	0.1	Confidence (+ or -):	Not Reported
Storet Code Description:	NITROGEN, AMMONIA, DISSOLVED (MG/L AS N)		
Constituent Name:	NH3-N	Unit of Measurement:	MG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Storet Number:	00623
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	0.23	Confidence (+ or -):	Not Reported
Storet Code Description:	NITROGEN, KJELDAHL, DISSOLVED (MG/L AS N)		
Constituent Name:	KJELDL	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00631
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	1.28	Confidence (+ or -):	Not Reported
Storet Code Description:	NITRITE PLUS NITRATE, DISSOLVED (MG/L AS N)		
Constituent Name:	NO2+NO3	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	00666
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	0.07	Confidence (+ or -):	Not Reported
Storet Code Description:	PHOSPHORUS, DISSOLVED (MG/L AS P)		
Constituent Name:	PHOS-DIS	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	01000
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	2	Confidence (+ or -):	Not Reported
Storet Code Description:	ARSENIC, DISSOLVED (UG/L AS AS)		
Constituent Name:	ARSENIC	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01005
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	36.2	Confidence (+ or -):	Not Reported
Storet Code Description:	BARIUM, DISSOLVED (UG/L AS BA)		
Constituent Name:	BARIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01010
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	BERYLLIUM, DISSOLVED (UG/L AS BE)		
Constituent Name:	BERYLLIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01020
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	45	Confidence (+ or -):	Not Reported
Storet Code Description:	BORON, DISSOLVED (UG/L AS B)		
Constituent Name:	BORON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01025
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	CADMIUM, DISSOLVED (UG/L AS CD)		
Constituent Name:	CADMIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01030
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	7	Confidence (+ or -):	Not Reported
Storet Code Description:	CHROMIUM, DISSOLVED (UG/L AS CR)		
Constituent Name:	CHROMIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01035
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	COBALT, DISSOLVED (UG/L AS CO)		
Constituent Name:	COBALT	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01040
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	2	Confidence (+ or -):	Not Reported
Storet Code Description:	COPPER, DISSOLVED (UG/L AS CU)		
Constituent Name:	COPPER	Unit of Measurement:	UG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Storet Number:	01046
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	12	Confidence (+ or -):	Not Reported
Storet Code Description:	IRON, DISSOLVED (UG/L AS FE)		
Constituent Name:	IRON	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01049
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	LEAD, DISSOLVED (UG/L AS PB)		
Constituent Name:	LEAD	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01056
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	MANGANESE, DISSOLVED (UG/L AS MN)		
Constituent Name:	MANGNESE	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01057
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	THALLIUM, DISSOLVED (UG/L AS TL)		
Constituent Name:	THALLIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01060
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	MOLYBDENUM, DISSOLVED, UG/L		
Constituent Name:	MOLY	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01065
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	7.7	Confidence (+ or -):	Not Reported
Storet Code Description:	NICKEL, DISSOLVED (UG/L AS NI)		
Constituent Name:	NICKEL	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01080
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	534	Confidence (+ or -):	Not Reported
Storet Code Description:	STRONTIUM, DISSOLVED (UG/L AS SR)		
Constituent Name:	STRONTUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01085
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	4.4	Confidence (+ or -):	Not Reported
Storet Code Description:	VANADIUM, DISSOLVED (UG/L AS V)		
Constituent Name:	VANADIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01090
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	6.5	Confidence (+ or -):	Not Reported
Storet Code Description:	ZINC, DISSOLVED (UG/L AS ZN)		
Constituent Name:	ZINC	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01095
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	1	Confidence (+ or -):	Not Reported
Storet Code Description:	ANTIMONY, DISSOLVED (UG/L AS SB)		
Constituent Name:	ANTIMONY	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01106
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	4	Confidence (+ or -):	Not Reported
Storet Code Description:	ALUMINUM, DISSOLVED (UG/L AS AL)		
Constituent Name:	ALUMINUM	Unit of Measurement:	UG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample Number:	1	Storet Number:	01130
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	3.9	Confidence (+ or -):	Not Reported
Storet Code Description:	LITHIUM, DISSOLVED (UG/L AS LI)		
Constituent Name:	LITHIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	01145
Sample Flag:	<	Sample Date:	8/27/1998
Constituent Value:	4	Confidence (+ or -):	Not Reported
Storet Code Description:	SELENIUM, DISSOLVED (UG/L AS SE)		
Constituent Name:	SELENIUM	Unit of Measurement:	UG/L
Sample Number:	1	Storet Number:	39086
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	228	Confidence (+ or -):	Not Reported
Storet Code Description:	ALKALINITY, FIELD, DISSOLVED AS CaCO3		
Constituent Name:	ALKLNITY	Unit of Measurement:	MG/L
Sample Number:	1	Storet Number:	71870
Sample Flag:	Not Reported	Sample Date:	8/27/1998
Constituent Value:	0.06	Confidence (+ or -):	Not Reported
Storet Code Description:	BROMIDE, DISSOLVED, (MG/L AS BR)		
Constituent Name:	BROMIDE	Unit of Measurement:	MG/L

Remarks:

Top of Edwards at 582 feet. Cemented from 566 ft. to surface.
 Drawdown of 5 ft pumping 5500 gpm for 36 hours on 5-16-67.

**F20
 NE
 1/2 - 1 Mile
 Higher**

TX WELLS B6837118

St_well_nu:	6837118	Cnty_code:	Bexar
Basin:	SAN ANTONIO RIVER	Zone:	1
Reg_num:	11	Prev_well_:	Not Reported
Longitude:	982845	Latitude:	292952
Owner:	San Antonio Portland Cement Co. #2		
Driller:	Max Gerfers		
Coord_src:	1		
Aqu_code:	EDWARDS AND ASSOCIATED LIMESTONES		
Aqu_id1:	11	Aqu_id2:	Not Reported
Aqu_id3:	Not Reported	Lsd_elev:	745
Meas_elev:	M	Use_cd_eco:	Not Reported
Date_drill:	1926	Well_typ:	W
Well_depth:	700	Src_depth:	reported by Owner,certain or documented depth
Type_lift:	Turbine Pump	Type of Power:	Electric Motor
Horsepower:	40.00	Primary use:	Industrial
Secondary use:	Not Reported	Tert use:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Avg Level:	N	Water quality:	N
Water Logs Available:	Not Reported		
Other data avail:	Not Reported		
Date collected:	Not Reported	Reporting agency:	Not Reported
Well_sched:	Y	Const method:	not reported
Completion:	not reported	Case_mater:	not reported
Screen_mat:	not reported	Lith_log:	Not Reported
Int_lith_b:	Not Reported	Lith_date:	Not Reported

Remarks:

Well J-4 in Texas Board of Water Engineers Bulletin 5608. Reported yield 600 gpm.

**F21
NE
1/2 - 1 Mile
Higher**

TX WELLS B6837117

St_well_nu:	6837117	Cnty_code:	Bexar
Basin:	SAN ANTONIO RIVER	Zone:	1
Reg_num:	11	Prev_well_:	Not Reported
Longitude:	982845	Latitude:	292952
Owner:	San Antonio Portland Cement Co. #1		
Driller:	Amos Lorenz		
Coord_src:	1		
Aqu_code:	EDWARDS AND ASSOCIATED LIMESTONES		
Aqu_id1:	11	Aqu_id2:	Not Reported
Aqu_id3:	Not Reported	Lsd_elev:	745
Meas_elev:	M	Use_cd_eco:	Not Reported
Date_drill:	Not Reported	Well_typ:	W
Well_depth:	665	Src_depth:	reported by Owner,certain or documented depth
Type_lift:	Turbine Pump	Type of Power:	Electric Motor
Horsepower:	Not Reported	Primary use:	Industrial
Secondary use:	Not Reported	Tert use:	Not Reported
Avg Level:	N	Water quality:	N
Water Logs Available:	Not Reported		
Other data avail:	Not Reported		
Date collected:	Not Reported	Reporting agency:	Not Reported
Well_sched:	Y	Const method:	not reported
Completion:	not reported	Case_mater:	not reported
Screen_mat:	not reported	Lith_log:	Not Reported
Int_lith_b:	Not Reported	Lith_date:	Not Reported

Remarks:

Well J-3 in Texas Board of Water Engineers Bulletin 5608. Reported yield 650 gpm.

**F22
NE
1/2 - 1 Mile
Higher**

TX WELLS B6837108

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

St_well_nu:	6837108	Cnty_code:	Bexar
Basin:	SAN ANTONIO RIVER	Zone:	1
Reg_num:	11	Prev_well_:	Not Reported
Longitude:	982844	Latitude:	292955
Owner:	San Antonio Portland Cement Co.		
Driller:	J. R. Johnson Drilling & Supplies		
Coord_src:	1		
Aqu_code:	EDWARDS AND ASSOCIATED LIMESTONES		
Aqu_id1:	11	Aqu_id2:	Not Reported
Aqu_id3:	Not Reported	Lsd_elev:	740
Meas_elev:	M	Use_cd_eco:	Not Reported
Date_drill:	06031965	Well_typ:	W
Well_depth:	986	Src_depth:	Driller's log/Well report
Type_lift:	Turbine Pump	Type of Power:	Electric Motor
Horsepower:	100.00	Primary use:	Industrial
Secondary use:	Not Reported	Tert use:	Not Reported
Avg Level:	M	Water quality:	N
Water Logs Available:	Drillers		
Other data avail:	Not Reported		
Date collected:	Not Reported	Reporting agency:	Not Reported
Well_sched:	Y	Const method:	not reported
Completion:	not reported	Case_mater:	not reported
Screen_mat:	not reported	Lith_log:	Not Reported
Int_lith_b:	Not Reported	Lith_date:	Not Reported

Water Level Information - 2x Month::

Measurement Number:	01	Measurement Date:	6/5/1965
Depth from land surface:	-69.0	Publishable - water-level is indicative of aquifer's piezometric surface	
Visit Mark:	Not Reported		
Measurement Method:	Not Reported	Measuring Agency:	Not Reported
Remark:	MEASUREMENT GOOD. NO UNUSUAL CONDITIONS NOTED AT OR NEAR WELL SITE		

Remarks:

Open hole from 622 to 986 ft. Cemented from 622 ft. to surface.
 Top of Edwards 617 ft. Reported yield 1,500 gpm. Development test:
 Drawdown of 5 ft. pumping 2,600 gpm on June 5, 1966.

**F23
 NE
 1/2 - 1 Mile
 Higher**

TX WELLS B6837113

St_well_nu:	6837113	Cnty_code:	Bexar
Basin:	SAN ANTONIO RIVER	Zone:	1
Reg_num:	11	Prev_well_:	Not Reported
Longitude:	982844	Latitude:	292955
Owner:	San Antonio Portland Cement Co. #4		
Driller:	J. R. Johnson Drilling & Supplies		
Coord_src:	1		
Aqu_code:	EDWARDS AND ASSOCIATED LIMESTONES		
Aqu_id1:	11	Aqu_id2:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Aqu_id3:	Not Reported	Lsd_elev:	740
Meas_elev:	M	Use_cd_eco:	Not Reported
Date_drill:	11261969	Well_typ:	W
Well_depth:	805	Src_depth:	Driller's log/Well report
Type_lift:	Turbine Pump	Type of Power:	Electric Motor
Horsepower:	125.00	Primary use:	Industrial
Secondary use:	Not Reported	Tert use:	Not Reported
Avg Level:	M	Water quality:	N
Water Logs Available:	Drillers		
Other data avail:	Not Reported		
Date collected:	Not Reported	Reporting agency:	Not Reported
Well_sched:	Y	Const method:	not reported
Completion:	not reported	Case_mater:	not reported
Screen_mat:	not reported	Lith_log:	Not Reported
Int_lith_b:	Not Reported	Lith_date:	Not Reported

Water Level Information - 2x Month::

Measurement Number:	01		
Depth from land surface:	-65.0	Measurement Date:	1/0/1970
Visit Mark:	Publishable - water-level is indicative of aquifer's piezometric surface		
Measurement Method:	Not Reported	Measuring Agency:	Not Reported
Remark:	MEASUREMENT GOOD. NO UNUSUAL CONDITIONS NOTED AT OR NEAR WELL SITE		

Remarks:

Open hole from 622 to 805 ft. Cemented from 622 ft. to surface.
 Top of Edwards 621 ft. Pump set at 180 ft. Reported yield 1,500 gpm.
 Development test: Drawdown of 7 ft. pumping 2,080 gpm for 3 hours
 in January 1970.

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

State Database: TX Radon

Radon Test Results

County	Mean	Total Sites	< 4 pCi/L	>= 4 pCi/L	Min pCi/L	Max pCi/L
BEXAR	1.1	61	3.3	.0	<.5	6.7

Federal EPA Radon Zone for BEXAR County: 3

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

Federal Area Radon Information for BEXAR COUNTY, TX

Number of sites tested: 57

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	1.056 pCi/L	96%	4%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

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

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

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

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

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

STATSGO: State Soil Geographic Database

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

ADDITIONAL ENVIRONMENTAL RECORD SOURCES

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

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

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

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

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STATE RECORDS

Texas Groundwater Database

Source: Texas Water Development Board
Telephone: 512-936-0837

Texas Oil and Gas Wells: Inventory of oil and gas wells in select Texas counties

Source: Texas Railroad Commission

Texas Public Water Supply Database on Ground and Surface Water

Source: Texas Commission on Environmental Quality

Texas Water Development Board Groundwater Database

Source: Texas Water Development Board
Telephone: 512-936-0833

RADON

State Database: TX Radon

Source: Department of Health
Telephone: 512-834-6688
Rinal Report of the Texas Indoor Radon Survey

Area Radon Information

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

EPA Radon Zones

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

OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

SCENARIO STATISTICS

07/14/2004 9:49 AM

SCENARIO: olmos-5/4/2004 300 K Gross Estimate II

FILE: C:\IWRPLAN\Data\Bussey01.mdb

COST VARIABLE: Cost Average Annual Costs

SENSITIVITY: Expected

OUTPUT VARIABLE: AAHU's Average Annual Habitat Units

SENSITIVITY: Expected

CREATED: 7/14/2004 9:39:00 A EDITED: ANALYZED: 7/14/2004 9:40:00 A

POSSIBLE COMBINATIONS: 110,592

COST EFFECTIVE: 87

ACTUAL COMBINATIONS: 110,592

BEST BUY: 13

CONSTRAINT GROUP: NONE

EXCLUDED SOLUTIONS

DERIVED VARIABLES

DEPENDENCY / NON-COMBINABILITY

SOLUTION LEGEND

Solution / Scale Code	Solution Description	Scale Description
A 0	EC Area 1	No Action
A 1	EC Area 1	Flow Baffles
A 2	EC Area 1	Live Stakes
B 0	Rip Corr Restoration	No Action
B 1	Rip Corr Restoration	1"
B 2	Rip Corr Restoration	Seedlings
B 3	Rip Corr Restoration	1" / Seedlings
C 0	EC Area 2	No Action
C 1	EC Area 2	Rip-Rap
C 2	EC Area 2	Rip-Rap / Live Stakes
D 0	Rip. Corr. Restoration Area 2	No Action
D 1	Rip. Corr. Restoration Area 2	1"
D 2	Rip. Corr. Restoration Area 2	Seedlings
D 3	Rip. Corr. Restoration Area 2	1" / Seedlings
E 0	Pilot Channel Area 2	No Action
E 1	Pilot Channel Area 2	3' x 3' Pilot Channel
F 0	Rip. Corr. Restoration Area 3	No Action
F 1	Rip. Corr. Restoration Area 3	1"
F 2	Rip. Corr. Restoration Area 3	Seedlings
F 3	Rip. Corr. Restoration Area 3	1" / Seedlings
G 0	Park Area Restoration Area 3	No Action
G 1	Park Area Restoration Area 3	Grass and Shrubs
H 0	Inverted Siphons Area 3	No Action
H 1	Inverted Siphons Area 3	Two 24" Pipes
H 2	Inverted Siphons Area 3	One 24" and One 48" Pipe
H 3	Inverted Siphons Area 3	Two 24" and One 48" Pipe
H 4	Inverted Siphons Area 3	One 24" , One 48" , and COSA Parks Bri
H 5	Inverted Siphons Area 3	ALL
I 0	Rip. Corr. Restoration Area 4	No Action
I 1	Rip. Corr. Restoration Area 4	1"

IWR-PLAN * Plan Of Interest

			Seedlings
I	-	Rip. Corr. Restoration Area 4	1" / Seedlings
I	3	Rip. Corr. Restoration Area 4	No Action
J	0	Native Prairie Restoration Are	Native Grasses
J	1	Native Prairie Restoration Are	

INPUT DATA

07/14/2004

9:46 AM

CODE	36	37
A 0	0.31	0
A 1	2.89	744
A 2	5.22	1396
B 0	4.46	0
B 1	15.14	19720
B 2	13.32	8513
B 3	14.23	15647
C 0	0.71	0
C 1	2.43	3357
C 2	4.38	3922
D 0	0	0
D 1	4.26	8237
D 2	3.91	4302
D 3	4.06	6809
E 0	0	0
E 1	0.03	24483
F 0	3.27	0
F 1	7.04	12463
F 2	6.68	11858
F 3	6.83	12243

IWR-PLAN

INPUT DATA

07/14/2004

9:46 AM

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G 1	2.41	1796
H 0	0.82	0
H 1	1.93	9499
H 2	1.93	13120
H 3	1.93	17246
H 4	1.93	13802
H 5	1.93	17928
I 0	11.65	0
I 1	34.06	19901
I 2	30.31	16924
I 3	32.19	18821
J 0	5.73	0
J 1	15.56	3523

Incremental Cost Of Best Buy Plan Combinations (Ordered By Output)

Scenario: olmos-5/4/200

Counter	Plan Code	AAHU's (HU's)	Cost (Dollars)	Avg. Cost Dollars / HU's	Inc. Cost (Dollars)	Inc. Output (HU's)	Incremental Cost Per Output
1	A0 B0 C0 D0 E0 F0 G0 H0 I0 J0	28.56	0.00	0.0000	0.0000	28.5600	0
2	A2 B0 C0 D0 E0 F0 G0 H0 I0 J0	33.47	1,396.00	41.7090	1,396.0000	4.9100	284.3177
3	A2 B0 C0 D0 E0 F0 G0 H0 I0 J1	43.30	4,919.00	113.6028	3,523.0000	9.8300	358.3927
4	A2 B0 C0 D0 E0 F0 G0 H0 I1 J1	65.71	24,820.00	377.7203	19,901.0000	22.4100	888.0411
5	A2 B2 C0 D0 E0 F0 G0 H0 I1 J1	74.57	33,333.00	447.0028	8,513.0000	8.8600	960.8352
6	A2 B2 C2 D0 E0 F0 G0 H0 I1 J1	78.24	37,255.00	476.1631	3,922.0000	3.6700	1068.665
7	A2 B2 C2 D2 E0 F0 G0 H0 I1 J1	82.15	41,557.00	505.8673	4,302.0000	3.9100	1100.256
8	A2 B2 C2 D2 E0 F0 G1 H0 I1 J1	82.95	43,353.00	522.6401	1,796.0000	0.8000	2245
9	A2 B2 C2 D2 E0 F1 G1 H0 I1 J1	86.72	55,816.00	643.6347	12,463.0000	3.7700	3305.835
10	A2 B1 C2 D2 E0 F1 G1 H0 I1 J1	88.54	67,023.00	756.9799	11,207.0000	1.8200	6157.692

Incremental Cost of Best Buy Plan Combinations (Ordered By Output)

Scenario: olmos-5/4/200

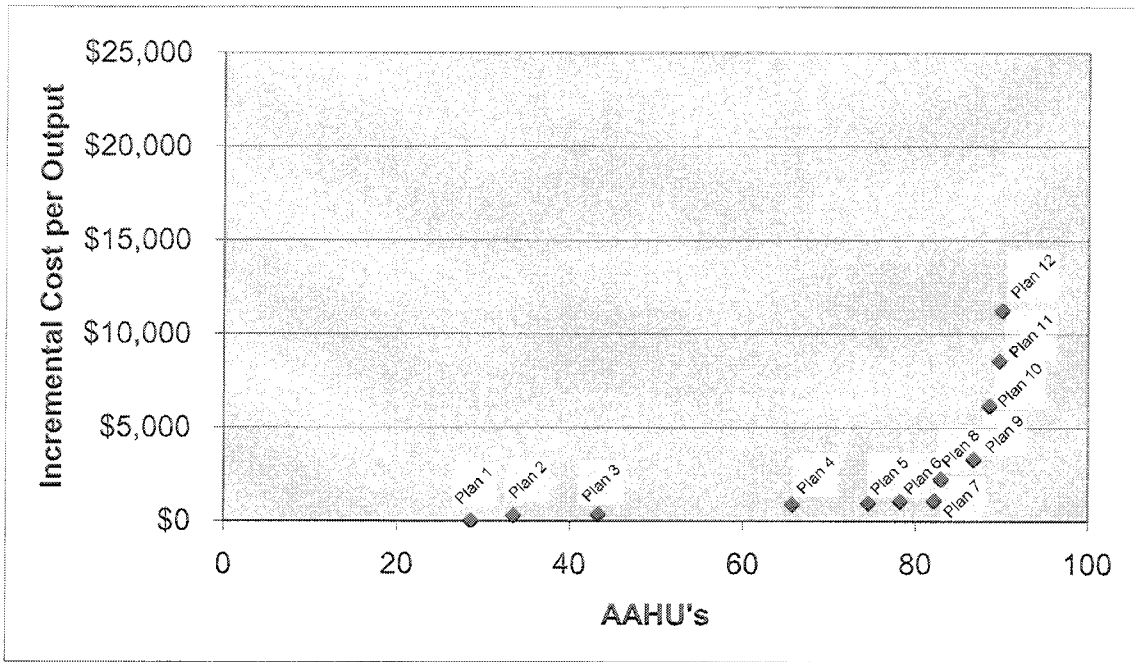
Counter	Plan Code	AAHU's (HU's)	Cost (Dollars)	Avg. Cost Dollars / HU's	Inc. Cost (Dollars)	Inc. Output (HU's)	Incremental Cost Per Output
11	A2 B1 C2 D2 E0 F1 G1 H1 I1 J1	89.65	76,522.00	853.5638	9,499.0000	1.1100	8557.657
12	A2 B1 C2 D1 E0 F1 G1 H1 I1 J1	90.00	80,457.00	893.9667	3,935.0000	0.3500	11242.86
13	A2 B1 C2 D1 E1 F1 G1 H1 I1 J1	90.03	104,940.00	1,165.6120	24,483.0000	0.0300	816100

Summary of Best Buy Plans

- Plan 1.** No action / future without project; land restrictions would not change, but due to the potential of creating a manicured landscape on City owned lands adjacent to Olmos Creek due to increased recreational needs and the high number of invasive / non-native species that are present, average annual habitat units (AAHU's) would decrease over time from 56.87 to 28.56.
- Plan 2.** Plan 1 with the addition of live willow stakes for erosion control in Area One. Live staking would occur on approximately 3,000 square feet near the terminus of the concrete-lined storm drain located in Area One. Staking would occur at three stakes per four square feet. Live staking provides benefits to the terrestrial environment as well as the aquatic environment. However, it is still estimated that AAHU's would decrease from 56.87 to 33.47.
- Plan 3.** Plan 2 with native prairie restoration located in Area Five. Prairie restoration would involve the purchase of approx. 17.62 acres, two applications of herbicide for invasive control, and overseeding with native grasses at 8 lbs. / acre. It is estimated that the AAHU's would still decrease from 56.87 to 43.30.
- Plan 4.** Plan 3 with the restoration of the riparian corridor in Area Four. Restoration of the riparian corridor in Area Four would require the purchase of approximately 37.47 acres, removal of invasive / non-native species, selective thinning of 1.0 acre of cedar elm and hackberry, and planting of approximately 4.91 acres of 1" caliper hard mast producing trees at 65 / acre. This plan would also involve a clean-up of debris and trash in the area so that proper planting equipment can be utilized. The addition of this measure would increase AAHU's from 56.87 to approximately 65.71.
- Plan 5.** Plan 4 with the restoration of the riparian corridor in Area One. Restoration of the riparian corridor in Area One would require the purchase of approximately 18.53 acres, two applications of herbicide for invasive control, drilling / overseeding of 18.53 acres with native grasses at 8 lbs. / acre, and planting of 18.53 acres of seedling hard and soft mast trees at 100 seedlings / acre. This plan would also involve a clean-up of debris and trash in the area so that proper planting equipment can be utilized. The addition of this measure would increase AAHU's from 56.87 to approximately 74.57.
- Plan 6.** Plan 5 with the addition of rip-rap and live stakes within Area Two (Olmos Municipal Golf Course). The addition of this measure would reduce the amount of erosion along the banks of Olmos Creek and reduce sedimentation downstream. This measure would require the purchase of approximately 2.107 acres, placement of approximately 288 cubic yards of rip-rap adjacent to the golf cart bridges, and planting of 1,635 live willow stakes at three stakes per four square feet. The addition of this measure would increase AAHU's from 56.87 to approximately 78.24.

- Plan 7.** Plan 6 with the restoration of the riparian corridor in Area Two (Olmos Municipal Golf Course). Restoration of the riparian corridor in Area Two would require the purchase of approximately 11.44 acres, drilling / overseeding of 6.5 acres with native grasses at 8 lbs. / acre, and planting of 6.5 acres of seedling hard and soft mast tress at 100 seedlings / acre. The addition of this measure would increase AAHU's from 56.87 to approximately 82.15.
- Plan 8.** Plan 7 with the restoration of Olmos Park in Area Three. Restoration of the park area would require the purchase of approximately 2.73 acres, one application of glyphosate to remove the bermuda grass, drilling / overseeding of 2.73 acres with native grasses at 8 lbs. / acre, and planting of 1 gallon shrubs at 20 shrubs / acre. The addition of this measure would increase AAHU's from 56.87 to 82.95.
- Plan 9.** Plan 8 with the restoration of the riparian corridor in Area Three. Restoration of the riparian corridor in Area Three would require the purchase of approximately 7.86 acres, removal of invasive / non-native species, selective thinning of 0.5 acre of cedar elm and hackberry, and planting of approximately 1.0 acre of 1" caliper hard mast producing trees at 65 / acre. This plan would also involve a clean-up of debris and trash in the area so that proper planting equipment can be utilized. The addition of this measure would increase AAHU's from 56.87 to approximately 86.72.
- Plan 10.** Plan 9 with the addition of 1" caliper plantings in Area One. This plan involves essentially the same measures as the plan above with the only difference being the size and rate of hard and soft mast producing trees to be planted in Area One. This addition of this measure would increase AAHU's from 56.87 to 88.54.
- Plan 11.** Plan 10 with the addition of instream restoration involving the conversion of two 24" pipeline crossings to inverted siphons and the demolition of a COSA Parks Department Bridge within Area Three. Instream restoration within Area Three would involve the purchase of approximately 0.86 acres, demolition of an abandoned concrete encased utility line, demolition of the COSA Parks Dept. Bridge, and conversion of two 24" pipeline crossings to inverted siphons. The addition of this measure would increase AAHU's from 56.87 to 89.65.
- Plan 12.** Plan 11 with the addition of 1" caliper plantings in Area Two. This plan involves essentially the same measures as Plan 7 above with the only difference being the size and rate of hard and soft mast producing trees to be planted in Area Two. This addition of this measure would increase AAHU's from 56.87 to 90.00.
- Plan 13.** Plan 12 with additional instream restoration involving the creation of a pilot channel in Area Two through the TXDOT concrete-lined channel. Instream restoration within Area Two would involve the purchase of approximately 1.05 acres and the creation of a 3' x 3' pilot channel though a 912' section of concrete-lined channel owned and operated by TXDOT. The addition of this measure would increase AAHU's from 56.87 to 90.03.

Incremental Cost per AAHU Of Best Buy Plans



* Note: Plan 13 is not shown on the above graph due to its extremely high incremental cost per output value.

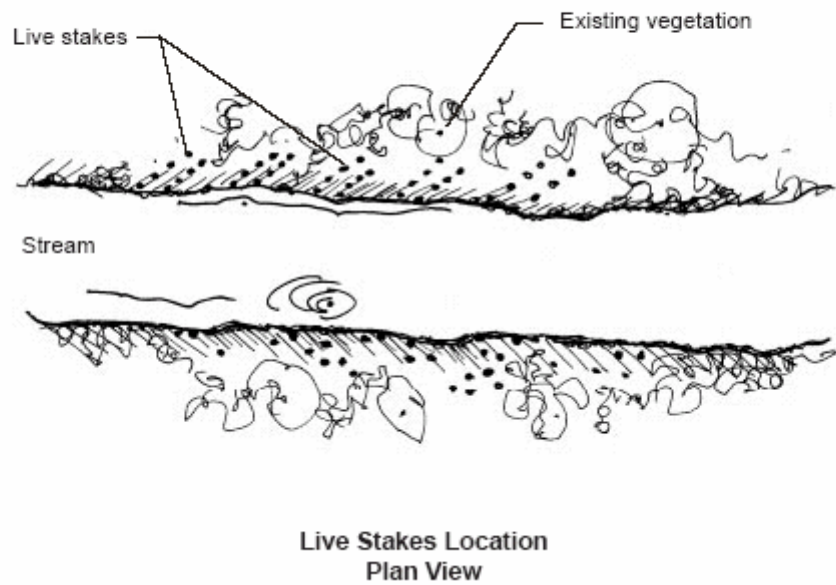


Diagram 1. Plan View of Live Stake Arrangement for Erosion Control (Source: Stream Corridor Restoration Handbook, USDA; Engineering Field Handbook, NRCS).

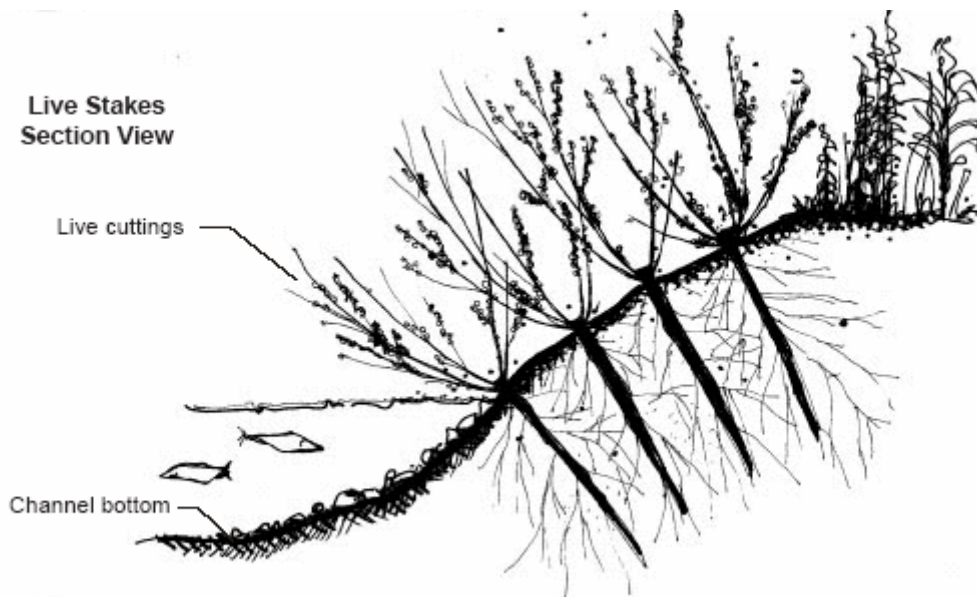


Diagram 2. Section View of Live Stake Arrangement for Erosion Control (Source: Stream Corridor Restoration Handbook, USDA; Engineering Field Handbook, NRCS).

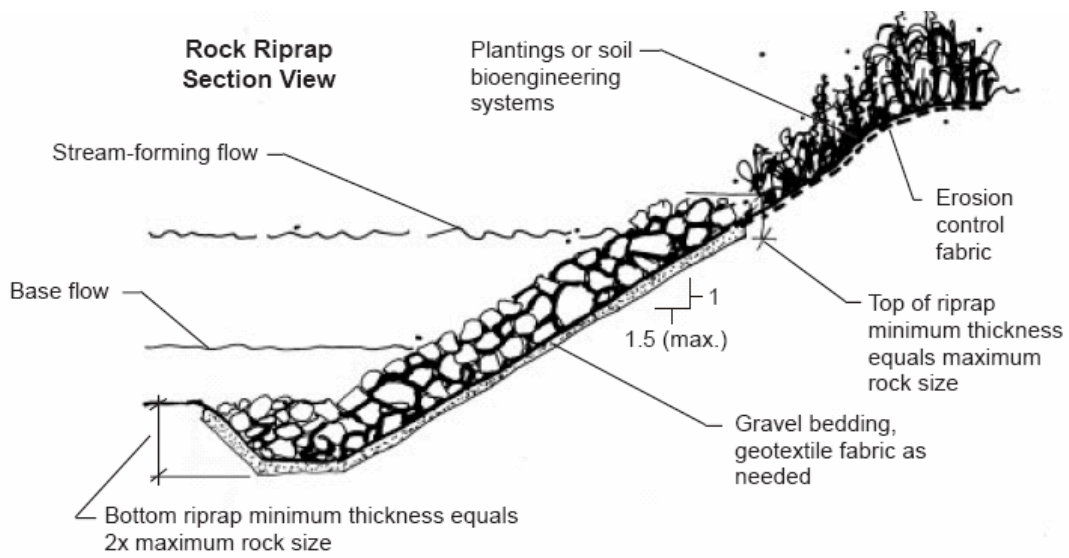


Diagram 3. Section View of Riprap used for Erosion Control
 (Source: Stream Corridor Restoration Handbook, USDA; Engineering Field Handbook, NRCS).

REAL ESTATE PLAN

**OLMOS CREEK AQUATIC ECOSYSYEM
RESTORATION PROJECT
SAN ANTONIO, BEXAR COUNTY, TEXAS**

DATE OF REPORT

NOVEMBER 9, 2006

PREPARED BY

**U.S. ARMY CORPS OF ENGINEERS
FORT WORTH DISTRICT**

**This Real Estate Plan has been prepared in accordance with
ER 405-1-12 dated 1 May 1998.**

PREPARED BY:



Thurman A. Schweitzer
Realty Specialist
Fort Worth District, Corps of Engineers
Real Estate Division, Technical Resources Branch

RECOMMENDED BY:



Rocky D. Lee, MAI, SRA
Lead Realty Specialist
Fort Worth District, Corps of Engineers
Real Estate Division, Technical Resources Branch

PURPOSE

This Real Estate Plan has been prepared in support of the feasibility study that describes the lands, easements, and rights of way, relocations, and disposal (LERRD) required for the Olmos Creek Aquatic Ecosystem Restoration Project in San Antonio, Bexar County, Texas. The City of San Antonio is the local sponsor and will acquire all LERRD. Authority for the project is Section 206 of the Water Resources Development Act of 1998.

Urbanization has caused the degradation of the aquatic ecosystem and surrounding riparian corridor in the Olmos Creek study area. Urbanization has also increased flow velocities resulting in increased erosion and sedimentation within the project area. Disturbances associated with urbanization have also caused invasive, non-native plant species to colonize portions of the riparian corridor, decreasing the structural and species diversity leading to a decrease in the overall habitat quality.

LANDS, EASEMENTS, AND RIGHTS-OF-WAY FOR THE RECOMMENDED PLAN

The subject property is located in the north central part of the City of San Antonio, Texas, south of I-410 and adjacent to US 281. The City of San Antonio is located in south central Texas, approximately 80 miles south of Austin and 200 miles west of Houston.

That portion of Olmos Creek included in this project is located near Basse Road and meanders from the west side of US 281 to the east side. The northern boundary of the project is adjacent to S. Skipper Road, and the southern boundary is the Olmos Dam. The extreme western boundary is San Pedro Avenue, and E. Olmos Drive is the eastern boundary.

A total of 11 tracts of land (99.21 acres) will be required for the project. Of this total, 7 tracts (96.85 acres) are owned in fee simple by the City of San Antonio. None of the lands were previously credited as part of a Federal project. The remaining 4 tracts (2.36 acres) are in private ownership and would be acquired through a perpetual easement. This ease would be acquired by the City of Alamo Heights and assigned to the City of San Antonio by Memorandum of Agreement (MOA). Although it is normal Corps policy to purchase Fee Simple for construction and operations/maintenance, the proposed easement would provide adequate interest for the proposed activities on the lands located within the City of Alamo Heights. These particular lands consist of the immediate bank of a watercourse and would be used only for the installation of features that improve habitat for aquatic resources. In addition, these lands are limited to the

acreage necessary to construct and operate the ecosystem restoration features. The total acreage needed by easement would be 2.36 acres out of a total of 99.21 acres. They do not require public access and are isolated and limited from public access due to the watercourse. The proposed easement language would be approved by the Corps, the local sponsor, and the City of Alamo Heights prior to signature of the Project Cost-sharing Agreement. On the attached map, these tracts are noted as 5, 6, 7, and 9 and will require a perpetual easement.

Based on information provided by the Project Manager, the cost-share for the project has not been finalized, but at this point is estimated at 65% Federal and 35% local.

Table 1 identifies the estates, acreages, and estimated values of the lands.

TABLE 1 LANDS, EASEMENTS, AND RIGHTS OF WAY OLMOS CREEK AQUATIC ECOSYSTEM RESTORATION PROJECT SAN ANTONIO, TEXAS		
ESTATE	ACRES	ESTIMATED VALUE
PROJECT PURPOSE: Aquatic Ecosystem Restoration		
PROJECT FEATURE: Aquatic Ecosystem Restoration		
Fee Simple	96.85	\$185,565
Perpetual Easement	2.36	\$ 91,596

Fee Simple: The fee simple title to (the land-described in Schedule A) (Tracts Nos. ____, ____, and ____), subject, however, to existing easements for public roads and highways, public utilities, railroads, and pipelines.

NON-STANDARD ESTATES

The perpetual easement (2.36 acres), located within the city limits of the City of Alamo Heights, is a non-standard estate. In the gross appraisal, the value of the perpetual easement was set at 20% of fee value. The City of Alamo Heights will acquire the perpetual easement and assign it to the City of San Antonio, through

a Memorandum of Agreement (MOA). The non-standard estate is purposed in lieu of fee, because it is believed to be more locally acceptable. It will be submitted for approval prior to acquisition.

PERPETUAL ECOSYSTEM PRESERVATION EASEMENT

The perpetual assignable right, power, privilege and easement in, on, over, and across (the land described in Schedule A) (Tracts Nos. ____, __ and __) for the purposes set forth below:

1. To construct, operate, and maintain structures and improvements as the United States (Government) in its sole discretion determines desirable for ecosystem management in mitigation for habitat losses.
2. To establish, remove, or control plants, animals, and fish.
3. To dredge, excavate, borrow, fill, and take such other actions as the Government from time to time and in its sole discretion, determines desirable for ecosystem management.
4. To prohibit the following activities:
 - a. Agricultural grazing or crop use, and application of herbicides and pesticides.
 - b. Placement of structures, except perimeter fencing.
 - c. Mineral development of any type.
 - d. Use of motorized vehicles.
 - e. Dumping of soil, trash, ashes, garbage, waste, or other unsightly or offensive material.
 - f. Excavation, dredging, drilling, or removal of any material, except for the maintenance of existing foot trails or fire lanes.
 - g. Removal, destruction, or cutting of trees, shrubs, or other vegetation.
 - h. Advertising of any kind or nature within the property.
 - i. Any activity determined by the Government to be detrimental or adverse to soil or water conservation, erosion control, and fish and wildlife habitat preservation.
 - j. Drainage from septic tanks, irrigation equipment, storage tanks, or pipes either on the surface or underground.
5. To enter for the purpose of inspecting and patrolling to determine compliance with the terms, conditions, restrictions, and purposes of this Ecosystem Preservation Easement. Notwithstanding any provision of law, ownership of all structures, improvements, and plants installed by the Government shall remain the property of the Government.

6. To perform cultural and archaeological investigations required by Federal and State law, including the right to excavate, memorialize, and permanently remove artifacts as may be necessary for preservation purposes.
7. To allow contractors and other third parties to perform any activities authorized by the Government.

The above estate is taken subject to existing easements for public roads and highways, public utilities, railroads and pipelines, and does not diminish the flowage easement rights conveyed in Book_____, Page _____ of the deed records in Bexar County, Texas; reserving, however, to the landowners, their heirs and assigns, all such rights and privileges as may be used and enjoyed without interfering with the use of the project, or abridging the rights and easement hereby acquired.

EXISTING FEDERAL PROJECT

There is no existing Federal project that lies fully or partially within the project area.

FEDERALLY OWNED LAND

There is no federally owned land associated with this project.

NAVIGATIONAL SERVITUDE

Olmos Creek is not a navigable stream or river. As such, navigation servitude is not applicable to this project.

PROJECT AREA

A map depicting the project area is attached.

FLOODING OF PROJECT AREA

Based on calculations performed by the Hydrology and Hydraulics Section of the Fort Worth District, no significant flooding to private property will be caused by the construction and maintenance of the aquatic ecosystem restoration project.

BASELINE COST ESTIMATE FOR REAL ESTATE

Property values included in the cost estimate are based on a Gross Appraisal, dated November 10, 2003, prepared by Travis Thorne. A supplement to the Gross Appraisal, dated October 30, 2006 was prepared by Randy Roberts. A review by Rocky Lee, MAI, SRA, of the Real Estate Division of the Fort Worth District concluded that the data was sufficient for planning purposes. The Fort Worth District, Technical Resources Branch, staff estimated administrative cost. Contingencies have been added to the estimates as follows:

- 01.23.03.01 Real Estate Planning Documents, 10% based on reasonable cost estimates
- 01.23.03.02 Real Estate Acquisition Documents, 10% based on reasonable certainty
- 01.23.03.03 Real Estate Condemnation Documents, 25% based on the expectation of at least 1 condemnation
- 01.23.03.05 Real Estate Appraisal Documents, 25% based on reasonable certainty of contract costs
- 01.23.03.06 Real Estate PL 91-646 Asst. Documents, 10% based on reasonable certainty
- 01.23.03.15 Real Estate Payment Documents, based on contingencies (20%) assigned by the Appraiser in the Gross Appraisal
- 01.23.03.17 Real Estate LERRD Accounting Documents, 25% based on reasonable certainty regarding accounting requirements

Costs are presented in Table 2, as follows. Estimates are presented in the standard Code of Accounts from MCACES Model Database, October 1994.

**Table 2
REAL ESTATE COST ESTIMATE FOR PROJECT IMPLEMENTATION
OLMOS CREEK AQUATIC RESTORATION PROJECT
SAN ANTONIO, TEXAS**

ACCT	DESCRIPTION	ESTIMATE	CONTINGENCY
01	Lands & Damages		
01.23	Construction Contract Documents		

REAL ESTATE PLAN: Olmos Creek Aquatic Ecosystem Restoration Project,
San Antonio, Bexar County, Texas

01.23.03	Real Estate Analysis Documents		
01.23.03.01	Real Estate Planning Documents	\$10,000	\$1,000
01.23.03.02	Real Estate Acquisition Documents		
	Acquisitions by Local Sponsor	\$104,000	\$1,040
	Review of Local Sponsor	\$6,500	\$650
01.23.03.03	Real Estate Condemnation Documents		
	Condemnations by Local Sponsor	\$12,000	\$3,000
	Review of Local Sponsor	\$1,000	\$250
01.23.03.05	Real Estate Appraisal Documents		
	Appraisals by Local Sponsor	\$23,400	\$5,850
	Review of Local Sponsor	\$6,500	\$1,625
01.23.03.06	Real Estate PL 91-646 Asst. Documents		
	PL 91-646 Asst. by Local Sponsor (Admin)	\$ - 0 -	\$ - 0 -
	Review of Local Sponsor	\$ - 0 -	\$ - 0 -
01.23.03.15	Real Estate Payment Documents		
	Payments by Local Sponsor (Land)	\$277,161	\$55,432
	Payments by Local Sponsor (PL 91-646)	\$ - 0 -	\$ - 0 -
	Review of Local Sponsor	\$ - 0 -	\$ - 0 -
01.23.03.17	Real Estate LERRD Crediting Documents	\$8,000	\$2,000
	TOTAL ADMIN & PAYMENTS	\$448,561	
	TOTAL CONTINGENCY		\$70,847
	GRAND TOTAL	\$519,408	

RELOCATION ASSISTANCE PROGRAM P.L. 91-646

Current plans indicate that no houses or businesses will be displaced in conjunction with this project.

MINERAL AND TIMBER ACTIVITY

There is no known mineral exploration or extraction activity in the area. Because of the limited potential for production in the area, the value of the mineral estate is considered nominal. The local sponsor owns the majority of the project lands and the extent of their mineral ownership is still to be researched, albeit, it is thought that the mineral rights have long been severed from surface ownership and highly fractionalized. Administrative costs to acquire or subordinate the mineral rights would be inordinately high. For these reasons, it is expected that acquisition of third-party minerals can be waived.

REAL ESTATE PLAN: Olmos Creek Aquatic Ecosystem Restoration Project,
San Antonio, Bexar County, Texas

The trees within the project area have been discussed with the Fort Worth District Forester. Based on this level of level of review, the Forester has offered the opinion that some merchantable timber may be within the subject area, but not of significant quantity to be profitable.

NON-FEDERAL SPONSOR'S CAPABILITY TO ACQUIRE LERRD

The City of San Antonio is responsible for acquiring LERRD. A checklist has been prepared in accordance with Chapter 12 of ER 405-1-12 and is attached. The City is aware of the requirements of PL 91-646, as amended, and the requirements for documenting expenses for credit purposes.

The City has also been advised of the risks associated with acquiring LERRD before execution of the PCA. The Corps will work with the sponsor throughout the project, to the extent appropriate and allowable; to ensure that there is understanding of the Federal real estate principles. Action will also be taken to address any policy issues that could significantly impact the project.

ZONING ORDINANCES

There are no special Zoning Ordinances proposed for enactment with the project.

MILESTONES FOR REAL ESTATE ACQUISITION

The schedule reflected a realistic implementation timeframe at the time it was developed. The schedule assumes the availability of funds and the availability of Federal funding throughout project implementation. The current schedule is as follows:

<p style="text-align: center;">TABLE 3 REAL ESTATE MILESTONE SCHEDULE FOR OLMOS CREEK AQUATIC ECOSYSTEM RESTORATION PROJECT</p>				
ACTIVITY	COE INITIATE	COE COMPLETE	LS INITIATE	LS COMPLETE
Transmittal of ROW drawings to LS with instruction to acquire LERRD	--		--	--
Conduct landowner meeting	--	--	--	15 Oct 2007
Prepare mapping and legal descriptions	--	--	1 Sep 2007	31 Nov 2007
Review mapping and legal descriptions	1 Dec 2007	15 Dec 2007	--	--

REAL ESTATE PLAN: Olmos Creek Aquatic Ecosystem Restoration Project,
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Obtain title evidence	--	--	1 Jan 2008	1 Mar 2008
Obtain tract appraisals	--	--	1 Jan 2008	15 Mar 2008
Review tract appraisals	30 Mar 2008	15 Apr 2008	--	--
Conduct negotiations	--	--	15 Apr 2008	30 Jun 2008
Perform closings	--	--	1 May 2008	30 Aug 2008
Perform condemnations	--	--	1 Jun 2008	15 Oct 2008
Certify availability of LERRD	18 Oct 2008	20 Oct 2008	15 Oct 2008	17 Oct 2008
Complete PL 91-646 benefit assistance	--	--	15 Oct 2009	1 Feb 2011
Review PL 91-646 payments	1 Feb 2011	1 Mar 2011	--	--
Prepare and submit credit requests	--	--	1 Nov 2010	30 Nov 2010
Review credit requests	1 Dec 2010	30 Dec 2010	--	--
Approve or deny credit requests	1 Jan 2011	1 Feb 2011	--	--
Establish value of LERRD credit in accounting records	1 Feb 2011	15 Feb 2011	--	--

FACILITY OR UTILITY RELOCATIONS

The Civil Design Appendix should be referenced, regarding all roads or utility relocations. According to the Attorney's Opinion, prepared by Mark McMurry, Assistant District Counsel, relocation of all utility lines will be the responsibility of the project sponsor. The project sponsor's obligation is set out in 42 USC 4628. As an agent of the Federally assisted program, it would have the same rights and remedies when acquiring the lands, easements, and rights of way for the project as required by the cooperative agreement. Any conclusion or categorization contained in this report that a time is a utility or facility relocation to be performed by the non-Federal sponsor as part of its LERRD responsibilities is preliminary only. The Government will make a final determination of the relocations necessary for the construction, operation, or maintenance of the project after further analysis and completion and approval of the Final Attorney's Opinions of Compensability for each of the impacted utilities and facilities. Cost estimates for the relocation of water lines, sanitary lines, gas lines, telephone lines, and electric lines can be found in the Cost/Spec Analysis Appendix.

CONTAMINANTS ON REAL ESTATE ACQUISITIONS

Staff from the Planning, Environmental, and Regulatory Division of the Fort Worth District has completed a literature review and site assessment for the area. Based on this evaluation, there are no known or suspected hazardous, toxic, and/or radioactive waste (HTRW) sites requiring remediation. Although none are expected, due diligence requires that actual field testing, conducted

during demolition, could reveal that some of the structures contain materials for which special handling and disposal would be required.

OPPOSITION BY LANDOWNERS IN PROJECT AREA

No landowners in the project area have come forward to give positive or negative responses concerning this project.

DISCUSSION OF EXECUTIVE ORDER

On June 23, 2006, the President issued an Executive Order (EO) titled: Protecting the Property Rights of the American People. The EO is aimed at restricting use of eminent domain for "advancing the economic interests of private parties", is specific to actions of the Federal Government, and allows takings for public use with just compensation for purposes benefiting the general public. But, it is noted that while many specific purposes are exempted from the restrictions of the EO, flood damage reduction is not. The applicability of the EO to cost-shared projects wherein LERRD is acquired by the non-Federal Sponsor with non-Federal funds is also not clear. Condemnation actions for purposes of clearing title are allowed under the order. The EO states that the Department of Justice is to issue further guidance, but such has not yet been forthcoming. This REP is written under the premise that the non-Federal Sponsor may exercise eminent domain for the flood damage reduction purposes of this project due to failure to reach a reasonable agreement on a negotiated purchase under the normal, long-standing procedures established by the Department of the Army and other Federal agencies.

OTHER REAL ESTATE ISSUES

There are no real estate issues relevant to planning, designing, or implementing this project.

CHECKLIST TO ACQUIRE LERRD

I. Legal Authority

- a. Does the sponsor have legal authority to acquire and hold title to real property for project purposes? **Yes**
- b. Does the sponsor have the power of eminent domain for this project? **Yes**
- c. Does the sponsor have "quick-take" authority for this project? **Yes**
- d. Are any of the lands/interests in land required for the project, located outside the sponsor's political boundary? **Yes – City of Alamo Heights**
- e. Are any of the lands/interests in land required for the project owned by an entity whose property the sponsor cannot condemn? **No**

II. Human Resource Requirements

- a. Will the sponsor's in-house staff require training to become familiar with the real estate requirements of Federal projects including PL 91-646, as amended? **Yes**
- b. If the answer to II.a is yes, has a reasonable plan been developed to provide such training? **Currently being developed**
- c. Does the sponsor's in-house staff have sufficient real estate acquisition experience to meet its responsibilities for the project? **Yes**
- d. Is the sponsor's projected in-house staffing level sufficient considering other work load, if any, and the project schedule? **Yes**
- e. Can the sponsor obtain contractor support, if required, in a timely fashion? **Yes**
- f. Will the sponsor likely request USACE assistance in acquiring real estate? **No**

III. Other Project Variables

- a. Will the sponsor's staff be located within reasonable proximity to the project site? **Yes**
- b. Has the sponsor approved the project/real estate schedule/milestones/ **Yes**

IV. Overall Assessment

- a. Has the sponsor performed satisfactorily on other USACE projects? **Yes**
- b. With regard to this project, the sponsor is anticipated to be: **Fully Capable**

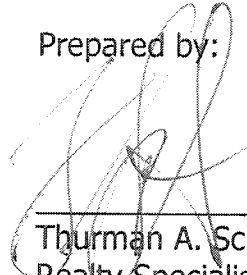
REAL ESTATE PLAN: Olmos Creek Aquatic Ecosystem Restoration Project,
San Antonio, Bexar County, Texas

V. Coordination

- a. Has this assessment been coordinated with the sponsor? **Yes**
- b. Does the sponsor concur with this assessment? **Yes**

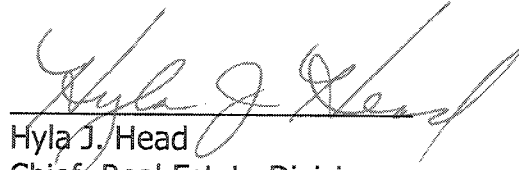
Information provided by Mr. Carlos Vigil (Community Development Director), City of Gainesville.

Prepared by:



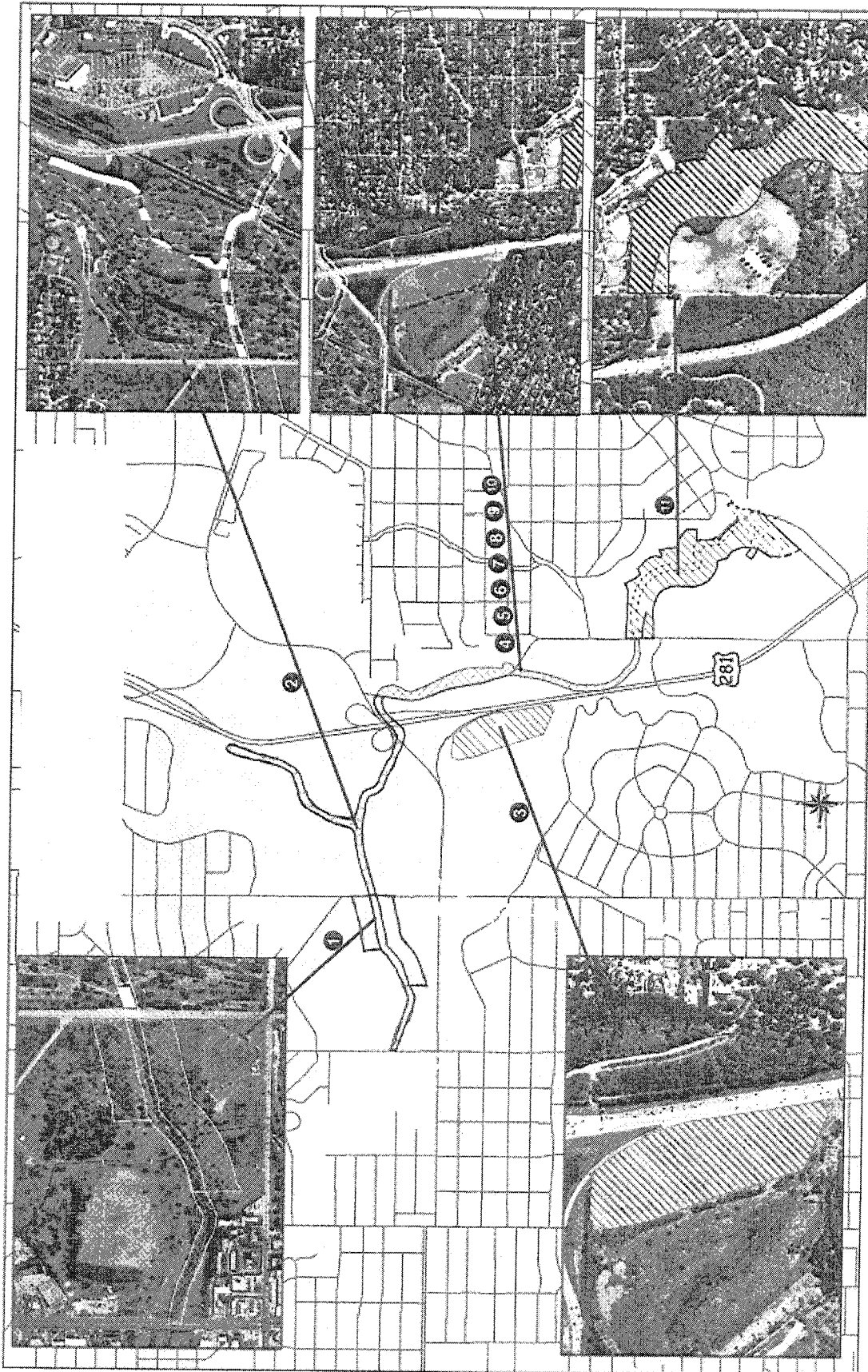
Thurman A. Schweitzer
Realty Specialist

Reviewed and approved by:

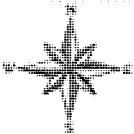


Hyla J. Head
Chief, Real Estate Division

REAL ESTATE PLAN: Olmos Creek Aquatic Ecosystem Restoration Project,
San Antonio, Bexar County, Texas



REAL ESTATE PLAN: Olmos Creek Aquatic Ecosystem Restoration Project,
San Antonio, Bexar County, Texas



Olmos Creek-San Antonio, TX
Real Estate Parcel Locations

PROJECT COOPERATION AGREEMENT
BETWEEN
THE DEPARTMENT OF THE ARMY
AND
THE CITY OF SAN ANTONIO
FOR THE
OLMOS CREEK
AQUATIC ECOSYSTEM RESTORATION PROJECT

THIS AGREEMENT is entered into this _____ day of _____, 20 __, by and between the Department of the Army (hereinafter the "Government"), represented by the U.S. Army Engineer for the Fort Worth District (hereinafter the "District Engineer") and the City of San Antonio (hereinafter the "Non-Federal Sponsor"), represented by the Planning Director, City of San Antonio

WITNESSETH, THAT:

WHEREAS, this Project is authorized by Section 206 of the Water Resources Development Act of 1996, Public Law 104-303, as amended;

WHEREAS, Section 206 of the Water Resources Development Act of 1996, Public Law 104-303, as amended, authorizes the Secretary of the Army to carry out an aquatic ecosystem restoration and protection project if the Secretary determines that the project will improve the quality of the environment, is in the public interest, and is cost-effective;

WHEREAS, the Government and the Non-Federal Sponsor desire to enter into a Project Cooperation Agreement for implementation of the Olmos Creek Aquatic Ecosystem Restoration Project (hereinafter the "Project", as defined in Article I.A. of this Agreement);

WHEREAS, Section 206(b) of the Water Resources Development Act of 1996, Public Law 104-303, as amended, specifies the cost-sharing requirements applicable to this Project;

WHEREAS, Section 206(c) of the Water Resources Development Act of 1996, Public Law 104-303, as amended, provides that the Secretary of the Army shall not commence construction of any project, or separable element thereof, under the Section 206 authority, until each non-Federal sponsor has entered into a binding agreement to pay the non-Federal share of the costs of construction required by Section 206(b) and to pay 100 percent of any operation, maintenance, replacement, and rehabilitation costs with respect to the project in accordance with regulations prescribed by the Secretary;

WHEREAS, the Government and Non-Federal Sponsor have the full authority and capability to perform as hereinafter set forth and intend to cooperate in cost-sharing and

financing of the implementation of the Project in accordance with the terms of this Agreement.

NOW, THEREFORE, the Government and the Non-Federal Sponsor agree as follows:

ARTICLE I - DEFINITIONS AND GENERAL PROVISIONS

For purposes of this Agreement:

A. The term "Project" shall mean restoration of instream habitat and the riparian corridor in and along Olmos Creek between San Pedro Avenue and Olmos Dam. Instream habitat will be restored through erosion control techniques and an increase in stream shade. Riparian corridor restoration will be accomplished through invasive / exotic plant control, selective thinning, and accompanied by woody and herbaceous plantings as generally described in the Olmos Creek Section 206 Aquatic Ecosystem Restoration Planning Design Report, dated September 20, 2006, and approved by the Fort Worth District Engineer, on _____, 20__ .

B. The term "total project costs" shall mean all costs incurred by the Non-Federal Sponsor and the Government in accordance with the terms of this Agreement directly related to implementation of the Project. Subject to the provisions of this Agreement, the term shall include, but is not necessarily limited to, feasibility phase planning costs; all engineering and design costs, including those incurred in the feasibility phase; the costs of investigations to identify the existence and extent of hazardous substances in accordance with Article XV.A. of this Agreement; the costs incurred by the Government for clean-up and response in accordance with Article XV.C. of this Agreement; costs of historic preservation activities in accordance with Article XVIII.A. of this Agreement; actual implementation costs; supervision and administration costs; costs of participation in the Project Coordination Team in accordance with Article V of this Agreement; costs of contract dispute settlements or awards; the value of lands, easements, rights-of-way, relocations, and suitable borrow and dredged or excavated material disposal areas for which the Government affords credit in accordance with Article IV of this Agreement; and costs of audit in accordance with Article X of this Agreement. The term does not include any costs for operation, maintenance, repair, replacement, or rehabilitation; any costs due to betterments; or any costs of dispute resolution under Article VII of this Agreement.

C. The term "financial obligation for implementation" shall mean a financial obligation of the Government, other than an obligation pertaining to the provision of lands, easements, rights-of-way, relocations, and borrow and dredged or excavated material disposal areas, that results or would result in a cost that is or would be included in total project costs.

D. The term "implementation" shall mean all actions required to carry out the Project.

E. The term "non-Federal proportionate share" shall mean the ratio of the Non-Federal Sponsor's total cash contribution required in accordance with Article II.D.2. of this Agreement to

total financial obligations for implementation as projected by the Government.

F. The term "period of implementation" shall mean the time from the effective date of this Agreement to the date that the District Engineer notifies the Non-Federal Sponsor in writing of the Government's determination that implementation of the Project is complete.

G. The term "highway" shall mean any public highway, roadway, street, or way, including any bridge thereof.

H. The term "relocation" shall mean providing a functionally equivalent facility to the owner of an existing utility, cemetery, highway or other public facility, or railroad when such action is authorized in accordance with applicable legal principles of just compensation. Providing a functionally equivalent facility may take the form of alteration, lowering, raising, or replacement and attendant removal of the affected facility or part thereof.

I. The term "fiscal year" shall mean one fiscal year of the Government. The Government fiscal year begins on October 1 and ends on September 30.

J. The term "functional portion of the Project" shall mean a portion of the Project that is suitable for tender to the Non-Federal Sponsor to operate and maintain in advance of completion of the entire Project. For a portion of the Project to be suitable for tender, the District Engineer must notify the Non-Federal Sponsor in writing of the Government's determination that the portion of the Project is complete and can function independently and for a useful purpose, although the balance of the Project is not complete.

K. The term "betterment" shall mean a change in the design and construction of an element of the Project resulting from the application of standards that the Government determines exceed those that the Government would otherwise apply for accomplishing the design and construction of that element.

ARTICLE II - OBLIGATIONS OF THE GOVERNMENT AND THE NON-FEDERAL SPONSOR

A. The Government, subject to the availability of funds and using those funds and funds provided by the Non-Federal Sponsor, shall expeditiously implement the Project, applying those procedures usually applied to Federal projects, pursuant to Federal laws, regulations, and policies.

1. The Government shall afford the Non-Federal Sponsor the opportunity to review and comment on the solicitations for all contracts, including relevant plans and specifications, prior to the Government's issuance of such solicitations. The Government shall not issue the solicitation for the first contract for implementation until the Non-Federal Sponsor

has confirmed in writing its willingness to proceed with the Project. To the extent possible, the Government shall afford the Non-Federal Sponsor the opportunity to review and comment on all contract modifications, including change orders, prior to the issuance to the contractor of a Notice to Proceed. In any instance where providing the Non-Federal Sponsor with notification of a contract modification or change order is not possible prior to issuance of the Notice to Proceed, the Government shall provide such notification in writing at the earliest date possible. To the extent possible, the Government also shall afford the Non-Federal Sponsor the opportunity to review and comment on all contract claims prior to resolution thereof. The Government shall consider in good faith the comments of the Non-Federal Sponsor, but the contents of solicitations, award of contracts, execution of contract modifications, issuance of change orders, resolution of contract claims, and performance of all work on the Project (whether the work is performed under contract or by Government personnel), shall be exclusively within the control of the Government.

2. Throughout the period of implementation, the District Engineer shall furnish the Non-Federal Sponsor with a copy of the Government's Written Notice of Acceptance of Completed Work for each contract for the Project.

B. The Non-Federal Sponsor may request the Government to accomplish betterments. Such requests shall be in writing and shall describe the betterments requested to be accomplished. If the Government in its sole discretion elects to accomplish the requested betterments or any portion thereof, it shall so notify the Non-Federal Sponsor in a writing that sets forth any applicable terms and conditions, which must be consistent with this Agreement. In the event of conflict between such a writing and this Agreement, this Agreement shall control. The Non-Federal Sponsor shall be solely responsible for all costs due to the requested betterments and shall pay all such costs in accordance with Article VI.C. of this Agreement.

C. When the District Engineer determines that the entire Project is complete or that a portion of the Project has become a functional portion of the Project, the District Engineer shall so notify the Non-Federal Sponsor in writing and furnish the Non-Federal Sponsor with an Operation, Maintenance, Repair, Replacement, and Rehabilitation Manual (hereinafter the "OMRR&R Manual") and with copies of all of the Government's Written Notices of Acceptance of Completed Work for all contracts for the Project or the functional portion of the Project that have not been provided previously. Upon such notification, the Non-Federal Sponsor shall operate, maintain, repair, replace, and rehabilitate the entire Project or the functional portion of the Project in accordance with Article VIII of this Agreement.

D. The Non-Federal Sponsor shall contribute 35 percent of total project costs in accordance with the provisions of this paragraph.

1. In accordance with Article III of this Agreement, the Non-Federal Sponsor shall provide all lands, easements, rights-of-way, and suitable borrow and dredged or excavated material disposal areas that the Government determines the Non-Federal Sponsor must provide

for the implementation, operation, and maintenance of the Project, and shall perform or ensure performance of all relocations that the Government determines to be necessary for the implementation, operation, and maintenance of the Project.

2. If the Government projects that the value of the Non-Federal Sponsor's contributions under paragraph D.1. of this Article and Articles V, X, and XV.A. of this Agreement will be less than 35 percent of total project costs, the Non-Federal Sponsor shall provide an additional cash contribution, in accordance with Article VI.B. of this Agreement, in the amount necessary to make the Non-Federal Sponsor's total contribution equal to 35 percent of total project costs.

3. If the Government determines that the value of the Non-Federal Sponsor's contributions provided under paragraphs D.1. and D.2. of this Article and Articles V, X, and XV.A. of this Agreement has exceeded 35 percent of total project costs, the Government, subject to the availability of funds, shall reimburse the Non-Federal Sponsor for any such value in excess of 35 percent of total project costs. After such a determination, the Government, in its sole discretion, may provide any remaining Project lands, easements, rights-of-way, and suitable borrow and dredged excavated material disposal areas and perform any remaining Project relocations on behalf of the Non-Federal Sponsor. Notwithstanding the provision of lands, easements, rights-of-way, and suitable borrow and dredged or excavated material disposal areas or performance of relocations by the Government under this paragraph, the Non-Federal Sponsor shall be responsible, as between the Government and the Non-Federal Sponsor, for the costs of cleanup and response in accordance with Article XV.C. of this Agreement.

E. The Non-Federal Sponsor may request the Government to provide lands, easements, rights-of-way, and suitable borrow and dredged or excavated material disposal areas or perform relocations on behalf of the Non-Federal Sponsor. Such requests shall be in writing and shall describe the services requested to be performed. If in its sole discretion the Government elects to perform the requested services or any portion thereof, it shall so notify the Non-Federal Sponsor in a writing that sets forth any applicable terms and conditions, which must be consistent with this Agreement. In the event of conflict between such a writing and this Agreement, this Agreement shall control. The Non-Federal Sponsor shall be solely responsible for all costs of the requested services and shall pay all such costs in accordance with Article VI.C. of this Agreement. Notwithstanding the provision of lands, easements, rights-of-way, and suitable borrow and dredged or excavated material disposal areas or performance of relocations by the Government under this paragraph, the Non-Federal Sponsor shall be responsible, as between the Government and the Non-Federal Sponsor, for the costs of cleanup and response in accordance with Article XV.C. of this Agreement.

F. The Government shall perform a final accounting in accordance with Article VI.D. of this Agreement to determine the contributions provided by the Non-Federal Sponsor in accordance with paragraphs B., D., and E. of this Article and Articles V, X, and XV.A. of this Agreement and to determine whether the Non-Federal Sponsor has met its obligations under

paragraphs B., D., and E. of this Article.

G. The Non-Federal Sponsor shall not use Federal funds to meet its share of total project costs under this Agreement unless the Federal granting agency verifies in writing that the expenditure of such funds is expressly authorized by statute.

ARTICLE III - LANDS, RELOCATIONS, DISPOSAL AREAS, AND PUBLIC LAW 91-646 COMPLIANCE

A. The Government, after consultation with the Non-Federal Sponsor, shall determine the lands, easements, and rights-of-way required for the implementation, operation, and maintenance of the Project, including those required for relocations, borrow materials, and dredged or excavated material disposal. The Government in a timely manner shall provide the Non-Federal Sponsor with general written descriptions, including maps as appropriate, of the lands, easements, and rights-of-way that the Government determines the Non-Federal Sponsor must provide, in detail sufficient to enable the Non-Federal Sponsor to fulfill its obligations under this paragraph, and shall provide the Non-Federal Sponsor with a written notice to proceed with acquisition of such lands, easements, and rights-of-way. Prior to the end of the period of implementation, the Non-Federal Sponsor shall acquire all lands, easements, and rights-of-way set forth in such descriptions. Furthermore, prior to issuance of the solicitation for each construction contract, the Non-Federal Sponsor shall provide the Government with authorization for entry to all lands, easements, and rights-of-way the Government determines the Non-Federal Sponsor must provide for that contract. The Non-Federal Sponsor shall ensure that lands, easements, and rights-of-way that the Government determines to be required for the operation and maintenance of the Project and that were provided by the Non-Federal Sponsor are retained in public ownership for uses compatible with the authorized purposes of the Project.

B. The Government, after consultation with the Non-Federal Sponsor, shall determine the improvements required on lands, easements, and rights-of-way to enable the proper disposal of dredged or excavated material associated with the implementation, operation, and maintenance of the Project. Such improvements may include, but are not necessarily limited to, retaining dikes, wasteweirs, bulkheads, embankments, monitoring features, stilling basins, and de-watering pumps and pipes. The Government in a timely manner shall provide the Non-Federal Sponsor with general written descriptions of such improvements in detail sufficient to enable the Non-Federal Sponsor to fulfill its obligations under this paragraph, and shall provide the Non-Federal Sponsor with a written notice to proceed with construction of such improvements. Prior to the end of the period of implementation, the Non-Federal Sponsor shall provide all improvements set forth in such descriptions. Furthermore, prior to issuance of the solicitation for each Government construction contract, the Non-Federal Sponsor shall prepare plans and specifications for all improvements the Government determines to be required for the proper disposal of dredged or excavated material under that contract, submit such plans and specifications to the Government for approval, and provide such improvements in accordance

with the approved plans and specifications.

C. The Government, after consultation with the Non-Federal Sponsor, shall determine the relocations necessary for the implementation, operation, and maintenance of the Project, including those necessary to enable the removal of borrow materials and the proper disposal of dredged or excavated material. The Government in a timely manner shall provide the Non-Federal Sponsor with general written descriptions, including maps as appropriate, of such relocations in detail sufficient to enable the Non-Federal Sponsor to fulfill its obligations under this paragraph, and shall provide the Non-Federal Sponsor with a written notice to proceed with such relocations. Prior to the end of the period of implementation, the Non-Federal Sponsor shall perform or ensure the performance of all relocations as set forth in such descriptions. Furthermore, prior to issuance of the solicitation for each Government construction contract, the Non-Federal Sponsor shall prepare or ensure the preparation of plans and specifications for, and perform or ensure the performance of, all relocations the Government determines to be necessary for that contract.

D. The Non-Federal Sponsor in a timely manner shall provide the Government with such documents as are sufficient to enable the Government to determine the value of any contribution provided pursuant to paragraphs A., B., or C. of this Article. Upon receipt of such documents the Government, in accordance with Article IV of this Agreement and in a timely manner, shall determine the value of such contribution, include such value in total project costs, and afford credit for such value toward the Non-Federal Sponsor's share of total project costs.

E. The Non-Federal Sponsor shall comply with the applicable provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646, as amended by Title IV of the Surface Transportation and Uniform Relocation Assistance Act of 1987 (Public Law 100-17), and the Uniform Regulations contained in 49 C.F.R. Part 24, in acquiring lands, easements, and rights-of-way required for the implementation, operation, and maintenance of the Project, including those necessary for relocations, borrow materials, and dredged or excavated material disposal, and shall inform all affected persons of applicable benefits, policies, and procedures in connection with said Act.

ARTICLE IV - CREDIT FOR LANDS, RELOCATIONS, AND DISPOSAL AREAS

A. The Non-Federal Sponsor shall receive credit toward its share of total project costs for the value of the lands, easements, rights-of-way, and suitable borrow and dredged or excavated material disposal areas that the Non-Federal Sponsor must provide pursuant to Article III of this Agreement, and for the value of the relocations that the Non-Federal Sponsor must perform or for which it must ensure performance pursuant to Article III of this Agreement. However, the Non-Federal Sponsor shall not receive credit for the value of any lands, easements, rights-of-way, relocations, or borrow and dredged or excavated material disposal areas that have been provided previously as an item of cooperation for another Federal project. The Non-

Federal Sponsor also shall not receive credit for the value of lands, easements, rights-of-way, relocations, or borrow and dredged or excavated material disposal areas to the extent that such items are provided using Federal funds unless the Federal granting agency verifies in writing that such credit is expressly authorized by statute.

B. For the sole purpose of affording credit in accordance with this Agreement, the value of lands, easements, and rights-of-way, including those necessary for relocations, borrow materials, and dredged or excavated material disposal, shall be the fair market value of the real property interests, plus certain incidental costs of acquiring those interests, as determined in accordance with the provisions of this paragraph.

1. Date of Valuation. The fair market value of lands, easements, or rights-of-way owned by the Non-Federal Sponsor on the effective date of this Agreement shall be the fair market value of such real property interests as of the date the Non-Federal Sponsor provides the Government with authorization for entry thereto. The fair market value of lands, easements, or rights-of-way acquired by the Non-Federal Sponsor after the effective date of this Agreement shall be the fair market value of such real property interests at the time the interests are acquired.

2. General Valuation Procedure. Except as provided in paragraph B.3. of this Article, the fair market value of lands, easements, or rights-of-way shall be determined in accordance with paragraph B.2.a. of this Article, unless thereafter a different amount is determined to represent fair market value in accordance with paragraph B.2.b. of this Article.

a. The Non-Federal Sponsor shall obtain, for each real property interest, an appraisal that is prepared by a qualified appraiser who is acceptable to the Non-Federal Sponsor and the Government. The appraisal must be prepared in accordance with the applicable rules of just compensation, as specified by the Government. The fair market value shall be the amount set forth in the Non-Federal Sponsor's appraisal, if such appraisal is approved by the Government. In the event the Government does not approve the Non-Federal Sponsor's appraisal, the Non-Federal Sponsor may obtain a second appraisal, and the fair market value shall be the amount set forth in the Non-Federal Sponsor's second appraisal, if such appraisal is approved by the Government. In the event the Government does not approve the Non-Federal Sponsor's second appraisal, or the Non-Federal Sponsor chooses not to obtain a second appraisal, the Government shall obtain an appraisal, and the fair market value shall be the amount set forth in the Government's appraisal, if such appraisal is approved by the Non-Federal Sponsor. In the event the Non-Federal Sponsor does not approve the Government's appraisal, the Government, after consultation with the Non-Federal Sponsor, shall consider the Government's and the Non-Federal Sponsor's appraisals and determine an amount based thereon, which shall be deemed to be the fair market value.

b. Where the amount paid or proposed to be paid by the Non-Federal Sponsor for the real property interest exceeds the amount determined pursuant to paragraph B.2.a. of this Article, the Government, at the request of the Non-Federal Sponsor, shall consider

all factors relevant to determining fair market value and, in its sole discretion, after consultation with the Non-Federal Sponsor, may approve in writing an amount greater than the amount determined pursuant to paragraph B.2.a. of this Article, but not to exceed the amount actually paid or proposed to be paid. If the Government approves such an amount, the fair market value shall be the lesser of the approved amount or the amount paid by the Non-Federal Sponsor, but no less than the amount determined pursuant to paragraph B.2.a. of this Article.

3. Eminent Domain Valuation Procedure. For lands, easements, or rights-of-way acquired by eminent domain proceedings instituted after the effective date of this Agreement, the Non-Federal Sponsor shall, prior to instituting such proceedings, submit to the Government notification in writing of its intent to institute such proceedings and an appraisal of the specific real property interests to be acquired in such proceedings. The Government shall have 60 days after receipt of such a notice and appraisal within which to review the appraisal, if not previously approved by the Government in writing.

a. If the Government previously has approved the appraisal in writing, or if the Government provides written approval of, or takes no action on, the appraisal within such 60-day period, the Non-Federal Sponsor shall use the amount set forth in such appraisal as the estimate of just compensation for the purpose of instituting the eminent domain proceeding.

b. If the Government provides written disapproval of the appraisal, including the reasons for disapproval, within such 60-day period, the Government and the Non-Federal Sponsor shall consult in good faith to promptly resolve the issues or areas of disagreement that are identified in the Government's written disapproval. If, after such good faith consultation, the Government and the Non-Federal Sponsor agree as to an appropriate amount, then the Non-Federal Sponsor shall use that amount as the estimate of just compensation for the purpose of instituting the eminent domain proceeding. If, after such good faith consultation, the Government and the Non-Federal Sponsor cannot agree as to an appropriate amount, then the Non-Federal Sponsor may use the amount set forth in its appraisal as the estimate of just compensation for the purpose of instituting the eminent domain proceeding.

c. For lands, easements, or rights-of-way acquired by eminent domain proceedings instituted in accordance with sub-paragraph B.3. of this Article, fair market value shall be either the amount of the court award for the real property interests taken, to the extent the Government determined such interests are required for the implementation, operation, and maintenance of the Project, or the amount of any stipulated settlement or portion thereof that the Government approves in writing.

4. Incidental Costs. For lands, easements, or rights-of-way acquired by the Non-Federal Sponsor within a five-year period preceding the effective date of this Agreement, or at any time after the effective date of this Agreement, the value of the interest shall include the documented incidental costs of acquiring the interest, as determined by the Government, subject to an audit in accordance with Article X.C. of this Agreement to determine reasonableness,

allocability, and allowability of costs. Such incidental costs shall include, but not necessarily be limited to, closing and title costs, appraisal costs, survey costs, attorney's fees, plat maps, and mapping costs, as well as the actual amounts expended for payment of any Public Law 91-646 relocation assistance benefits provided in accordance with Article III.E. of this Agreement.

C. After consultation with the Non-Federal Sponsor, the Government shall determine the value of relocations in accordance with the provisions of this paragraph.

1. For a relocation other than a highway, the value shall be only that portion of relocation costs that the Government determines is necessary to provide a functionally equivalent facility, reduced by depreciation, as applicable, and by the salvage value of any removed items.

2. For a relocation of a highway, the value shall be only that portion of relocation costs that would be necessary to accomplish the relocation in accordance with the design standard that the State of Texas would apply under similar conditions of geography and traffic load, reduced by the salvage value of any removed items.

3. Relocation costs shall include, but not necessarily be limited to, actual costs of performing the relocation; planning, engineering and design costs; supervision and administration costs; and documented incidental costs associated with performance of the relocation, but shall not include any costs due to betterments, as determined by the Government, nor any additional cost of using new material when suitable used material is available. Relocation costs shall be subject to an audit in accordance with Article X.C. of this Agreement to determine reasonableness, allocability, and allowability of costs.

4. Any credit afforded for the value of relocations performed within the Project boundaries is subject to satisfactory compliance with applicable Federal labor laws covering non-Federal construction, including, but not limited to, 40 U.S.C. 3141-3148 and 40 U.S.C. 3701-3708 (revising, codifying and enacting without substantive change the provisions of the Davis-Bacon Act (formerly 40 U.S.C. 276a *et seq.*), the Contract Work Hours and Safety Standards Act (formerly 40 U.S.C. 327 *et seq.*) and the Copeland Anti-Kickback Act (formerly 40 U.S.C. 276c)). Crediting may be withheld, in whole or in part, as a result of the Non-Federal Sponsor's failure to comply with its obligations under these laws.

D. The value of the improvements made to lands, easements, and rights-of-way for the proper disposal of dredged or excavated material shall be the costs of the improvements, as determined by the Government, subject to an audit in accordance with Article X.C. of this Agreement to determine reasonableness, allocability, and allowability of costs. Such costs shall include, but not necessarily be limited to, actual costs of providing the improvements; planning, engineering and design costs; supervision and administration costs; and documented incidental costs associated with providing the improvements, but shall not include any costs due to betterments, as determined by the Government.

ARTICLE V - PROJECT COORDINATION TEAM

A. To provide for consistent and effective communication, the Non-Federal Sponsor and the Government, not later than 30 days after the effective date of this Agreement, shall appoint named senior representatives to a Project Coordination Team. Thereafter, the Project Coordination Team shall meet regularly until the end of the period of implementation. The Government's Project Manager and a counterpart named by the Non-Federal Sponsor shall co-chair the Project Coordination Team.

B. The Government's Project Manager and the Non-Federal Sponsor's counterpart shall keep the Project Coordination Team informed of the progress of implementation and of significant pending issues and actions, and shall seek the views of the Project Coordination Team on matters that the Project Coordination Team generally oversees.

C. Until the end of the period of implementation, the Project Coordination Team shall generally oversee the Project, including issues related to design; plans and specifications; scheduling; real property and relocation requirements; real property acquisition; contract awards and modifications; contract costs; the application of and compliance with 40 U.S.C. 3141-3148 and 40 U.S.C. 3701-3708 (revising, codifying and enacting without substantive change the provisions of the Davis-Bacon Act (formerly 40 U.S.C. 276a *et seq.*), the Contract Work Hours and Safety Standards Act (formerly 40 U.S.C. 327 *et seq.*) and the Copeland Anti-Kickback Act (formerly 40 U.S.C. 276c)) for relocations; the Government's cost projections; final inspection of the entire Project or functional portions of the Project; preparation of the proposed OMR&R Manual; anticipated requirements and needed capabilities for performance of operation, maintenance, repair, replacement, and rehabilitation of the Project; and other related matters.

D. The Project Coordination Team may make recommendations that it deems warranted to the District Engineer on matters that the Project Coordination Team generally oversees, including suggestions to avoid potential sources of dispute. The Government in good faith shall consider the recommendations of the Project Coordination Team. The Government, having the legal authority and responsibility for implementation of the Project, has the discretion to accept, reject, or modify the Project Coordination Team's recommendations.

E. The costs of participation in the Project Coordination Team shall be included in total project costs and cost shared in accordance with the provisions of this Agreement.

ARTICLE VI - METHOD OF PAYMENT

A. The Government shall maintain current records of contributions provided by the

parties and current projections of total project costs and costs due to betterments. At least quarterly, the Government shall provide the Non-Federal Sponsor with a report setting forth all contributions provided to date and the current projections of total project costs, of total costs due to betterments, of the components of total project costs, of each party's share of total project costs, of the Non-Federal Sponsor's total cash contributions required in accordance with Articles II.B., II.D., and II.E. of this Agreement, and of the non-Federal proportionate share. On the effective date of this Agreement, total project costs are projected to be \$1,102,559, and the Non-Federal Sponsor's cash contribution required under Article II.D. of this Agreement is projected to be \$0. Such amounts are estimates subject to adjustment by the Government and are not to be construed as the total financial responsibilities of the Government and the Non-Federal Sponsor.

B. The Non-Federal Sponsor shall provide the cash contribution required under Article II.D.2. of this Agreement in accordance with the following provisions: Not less than 30 calendar days prior to the scheduled date for issuance of the solicitation for the first construction contract, the Government shall notify the Non-Federal Sponsor in writing of such scheduled date and the funds the Government determines to be required from the Non-Federal Sponsor to meet its projected cash contribution under Article II.D.2. of this Agreement. Not later than such scheduled date, the Non-Federal Sponsor shall provide the Government with the full amount of the required funds by delivering a check payable to "FAO, USAED, Fort Worth District" to the District Engineer, or verifying to the satisfaction of the Government that the Non-Federal Sponsor has deposited the required funds in an escrow or other account acceptable to the Government, with interest accruing to the Non-Federal Sponsor, or presenting the Government with an irrevocable letter of credit acceptable to the Government for the required funds, or providing an Electronic Funds Transfer of the required funds in accordance with procedures established by the Government. The Government shall draw from the funds provided by the Non-Federal Sponsor such sums as the Government deems necessary to cover: (a) the non-Federal proportionate share of financial obligations for implementation incurred prior to commencement of the period of implementation; and (b) the non-Federal proportionate share of financial obligations for implementation as they are incurred during the period of implementation. In the event the Government determines that the Non-Federal Sponsor must provide additional funds to meet the Non-Federal Sponsor's cash contribution, the Government shall notify the Non-Federal Sponsor in writing of the additional funds required and provide an explanation of why additional funds are required. Within 60 calendar days after receipt of such notice, the Non-Federal Sponsor shall provide the Government with the full amount of the additional required funds through any of the payment mechanisms specified above.

C. In advance of the Government incurring any financial obligation associated with additional work under Article II.B. or II.E. of this Agreement, the Non-Federal Sponsor shall provide the Government with the full amount of the funds required to pay for such additional work through any of the payment mechanisms specified in B.1. of this Article. The Government shall draw from the funds provided by the Non-Federal Sponsor such sums as the Government deems necessary to cover the Government's financial obligations for such additional work as they are incurred. In the event the Government determines that the Non-Federal Sponsor must

provide additional funds to meet its cash contribution, the Government shall notify the Non-Federal Sponsor in writing of the additional funds required and provide an explanation of why additional funds are required. Within 30 calendar days from receipt of such notice, the Non-Federal Sponsor shall provide the Government with the full amount of the additional required funds through any of the payment mechanisms specified in B.1. of this Article.

D. Upon completion of the Project or termination of this Agreement, and upon resolution of all relevant claims and appeals, the Government shall conduct a final accounting and furnish the Non-Federal Sponsor with the results of the final accounting. The final accounting shall determine total project costs, each party's contribution provided thereto, and each party's required share thereof. The final accounting also shall determine costs due to betterments and the Non-Federal Sponsor's cash contribution provided pursuant to Article II.B. of this Agreement.

1. In the event the final accounting shows that the total contribution provided by the Non-Federal Sponsor is less than its required share of total project costs plus costs due to any betterments provided in accordance with Article II.B. of this Agreement, the Non-Federal Sponsor shall, no later than 90 calendar days after receipt of written notice, make a payment to the Government of whatever sum is required to meet the Non-Federal Sponsor's required share of total project costs plus costs due to any betterments provided in accordance with Article II.B. of this Agreement by delivering a check payable to "FAO, USAED, Fort Worth District" to the District Engineer or providing an Electronic Funds Transfer in accordance with procedures established by the Government.

2. In the event the final accounting shows that the total contribution provided by the Non-Federal Sponsor exceeds its required share of total project costs plus costs due to any betterments provided in accordance with Article II.B. of this Agreement, the Government shall, subject to the availability of funds, refund the excess to the Non-Federal Sponsor no later than 90 calendar days after the final accounting is complete. In the event existing funds are not available to refund the excess to the Non-Federal Sponsor, the Government shall seek such appropriations as are necessary to make the refund.

ARTICLE VII - DISPUTE RESOLUTION

As a condition precedent to a party bringing any suit for breach of this Agreement, that party must first notify the other party in writing of the nature of the purported breach and seek in good faith to resolve the dispute through negotiation. If the parties cannot resolve the dispute through negotiation, they may agree to a mutually acceptable method of non-binding alternative dispute resolution with a qualified third party acceptable to both parties. The parties shall each pay 50 percent of any costs for the services provided by such a third party as such costs are incurred. The existence of a dispute shall not excuse the parties from performance pursuant to this Agreement.

ARTICLE VIII - OPERATION, MAINTENANCE, REPAIR, REPLACEMENT,
AND REHABILITATION (OMRR&R)

A. Upon notification in accordance with Article II.C. of this Agreement and for so long as the Project remains authorized, the Non-Federal Sponsor shall operate, maintain, repair, replace, and rehabilitate the entire Project or the functional portion of the Project, at no cost to the Government, in a manner compatible with the Project's authorized purposes and in accordance with applicable Federal and State laws as provided in Article XI of this Agreement and specific directions prescribed by the Government in the OMRR&R Manual and any subsequent amendments thereto.

B. The Non-Federal Sponsor hereby gives the Government a right to enter, at reasonable times and in a reasonable manner, upon property that the Non-Federal Sponsor owns or controls for access to the Project for the purpose of inspection and, if necessary, for the purpose of completing, operating, maintaining, repairing, replacing, or rehabilitating the Project. If an inspection shows that the Non-Federal Sponsor for any reason is failing to perform its obligations under this Agreement, the Government shall send a written notice describing the non-performance to the Non-Federal Sponsor. If, after 30 calendar days from receipt of the notice, the Non-Federal Sponsor continues to fail to perform, then the Government shall have the right to enter, at reasonable times and in a reasonable manner, upon property the Non-Federal Sponsor owns or controls for access to the Project for the purpose of completing, operating, maintaining, repairing, replacing, or rehabilitating the Project. No completion, operation, maintenance, repair, replacement, or rehabilitation by the Government shall operate to relieve the Non-Federal Sponsor's obligations as set forth in this Agreement, or to preclude the Government from pursuing any other remedy at law or equity to ensure faithful performance pursuant to this Agreement.

ARTICLE IX – HOLD AND SAVE

Subject to the provisions of Article XX of this Agreement, the Non-Federal Sponsor shall hold and save the Government free from all damages arising from the implementation, operation, maintenance, repair, replacement and rehabilitation of the Project, and any Project related betterments, except for damages due to the fault or negligence of the Government or its contractors.

ARTICLE X - MAINTENANCE OF RECORDS AND AUDIT

A. Not later than 60 calendar days after the effective date of this Agreement, the

Government and the Non-Federal Sponsor shall develop procedures for keeping books, records, documents, and other evidence pertaining to costs and expenses incurred pursuant to this Agreement. These procedures shall incorporate, and apply as appropriate, the standards for financial management systems set forth in the Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments at 32 C.F.R. Section 33.20. The Government and the Non-Federal Sponsor shall maintain such books, records, documents, and other evidence in accordance with these procedures and for a minimum of three years after the period of implementation and resolution of all relevant claims arising therefrom. To the extent permitted under applicable Federal laws and regulations, the Government and the Non-Federal Sponsor shall each allow the other to inspect such books, documents, records, and other evidence.

B. Pursuant to 32 C.F.R. Section 33.26, the Non-Federal Sponsor is responsible for complying with the Single Audit Act of 1984, 31 U.S.C. Sections 7501-7507, as implemented by Office of Management and Budget (OMB) Circular No. A-133 and Department of Defense Directive 7600.10. Upon request of the Non-Federal Sponsor and to the extent permitted under applicable Federal laws and regulations, the Government shall provide to the Non-Federal Sponsor and independent auditors any information necessary to enable an audit of the Non-Federal Sponsor's activities under this Agreement. The costs of any non-Federal audits performed in accordance with this paragraph shall be allocated in accordance with the provisions of OMB Circulars A-87 and A-133, and such costs as are allocated to the Project shall be included in total project costs and cost shared in accordance with the provisions of this Agreement.

C. In accordance with 31 U.S.C. Section 7503, the Government may conduct audits in addition to any audit that the Non-Federal Sponsor is required to conduct under the Single Audit Act. Any such Government audits shall be conducted in accordance with Government Auditing Standards and the cost principles in OMB Circular No. A-87 and other applicable cost principles and regulations. The costs of Government audits performed in accordance with this paragraph shall be included in total project costs and cost shared in accordance with the provisions of this Agreement.

ARTICLE XI - FEDERAL AND STATE LAWS

In the exercise of their respective rights and obligations under this Agreement, the Non-Federal Sponsor and the Government agree to comply with all applicable Federal and State laws and regulations, including, but not limited to: Section 601 of the Civil Rights Act of 1964, Public Law 88-352 (42 U.S.C. 2000d) and Department of Defense Directive 5500.11 issued pursuant thereto; Army Regulation 600-7, entitled "Nondiscrimination on the Basis of Handicap in Programs and Activities Assisted or Conducted by the Department of the Army"; and all applicable Federal labor standards requirements including, but not limited to, 40 U.S.C. 3141-3148 and 40 U.S.C. 3701-3708 (revising, codifying and enacting without substantive change the

provisions of the Davis-Bacon Act (formerly 40 U.S.C. 276a *et seq.*), the Contract Work Hours and Safety Standards Act (formerly 40 U.S.C. 327 *et seq.*) and the Copeland Anti-Kickback Act (formerly 40 U.S.C. 276c).

ARTICLE XII - RELATIONSHIP OF PARTIES

A. In the exercise of their respective rights and obligations under this Agreement the Government and the Non-Federal Sponsor each act in an independent capacity, and neither is to be considered the officer, agent, or employee of the other.

B. In the exercise of its rights and obligations under this Agreement, neither party shall provide, without the consent of the other party, any contractor with a release that waives or purports to waive any rights such other party may have to seek relief or redress against such contractor either pursuant to any cause of action that such other party may have or for violation of any law.

ARTICLE XIII - OFFICIALS NOT TO BENEFIT

No member of or delegate to the Congress, nor any resident commissioner, shall be admitted to any share or part of this Agreement, or to any benefit that may arise therefrom.

ARTICLE XIV - TERMINATION OR SUSPENSION

A. If at any time the Non-Federal Sponsor fails to fulfill its obligations under Article II.B., II.D., II.E., VI, or XVIII.C. of this Agreement, the Assistant Secretary of the Army (Civil Works) shall terminate this Agreement or suspend future performance under this Agreement unless he determines that continuation of work on the Project is in the interest of the United States or is necessary in order to satisfy agreements with any other non-Federal interests in connection with the Project.

B. If appropriations are not available in amounts sufficient to meet the Government's share of Project expenditures for the then-current or upcoming fiscal year, the Government shall so notify the Non-Federal Sponsor in writing, and 60 calendar days thereafter either party may elect without penalty to terminate this Agreement or to suspend future performance under this Agreement. In the event that either party elects to suspend future performance under this Agreement pursuant to this paragraph, such suspension shall remain in effect until such time as the Government receives sufficient appropriations or until either the Government or the Non-Federal Sponsor elects to terminate this Agreement.

C. In the event that either party elects to terminate this Agreement pursuant to this

Article or Article XV of this Agreement, both parties shall conclude their activities relating to the Project and proceed to a final accounting in accordance with Article VI.D. of this Agreement.

D. Any termination of this Agreement or suspension of future performance under this Agreement in accordance with this Article or Article XV of this Agreement shall not relieve the parties of any obligation previously incurred. Any delinquent payment owed by the Non-Federal Sponsor shall be charged interest at a rate, to be determined by the Secretary of the Treasury, equal to 150 per centum of the average bond equivalent rate of the 13-week Treasury bills auctioned immediately prior to the date on which such payment became delinquent, or auctioned immediately prior to the beginning of each additional 3-month period if the period of delinquency exceeds 3 months.

ARTICLE XV - HAZARDOUS SUBSTANCES

A. After execution of this Agreement and upon direction by the District Engineer, the Non-Federal Sponsor shall perform, or cause to be performed, any investigations for hazardous substances that the Government or the Non-Federal Sponsor determines to be necessary to identify the existence and extent of any hazardous substances regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (hereinafter "CERCLA"), 42 U.S.C. Sections 9601-9675, that may exist in, on, or under lands, easements, and rights-of-way that the Government determines, pursuant to Article III of this Agreement, to be required for the implementation, operation, and maintenance of the Project, except for any such lands that the Government determines to be subject to the navigation servitude. For lands that the Government determines to be subject to the navigation servitude, only the Government shall perform such investigations unless the District Engineer provides the Non-Federal Sponsor with prior specific written direction, in which case the Non-Federal Sponsor shall perform such investigations in accordance with such written direction. All actual costs incurred by the Non-Federal Sponsor or the Government for such investigations for hazardous substances shall be included in total project costs and cost shared in accordance with the provisions of this Agreement, subject to an audit in accordance with Article X.C. of this Agreement to determine reasonableness, allocability, and allowability of costs.

B. In the event it is discovered through any investigation for hazardous substances or other means that hazardous substances regulated under CERCLA exist in, on, or under any lands, easements, or rights-of-way, that the Government determines, pursuant to Article III of this Agreement, the Non-Federal Sponsor must provide for the implementation, operation, and maintenance of the Project, the Non-Federal Sponsor and the Government shall provide prompt written notice to each other, and the Non-Federal Sponsor shall not proceed with the acquisition of the real property interests until both parties agree that the Non-Federal Sponsor should proceed.

C. The Government and the Non-Federal Sponsor shall determine whether to initiate

implementation of the Project, or, if already in implementation, whether to continue with work on the Project, suspend future performance under this Agreement, or terminate this Agreement for the convenience of the Government, in any case where hazardous substances regulated under CERCLA are found to exist in, on, or under any lands, easements, or rights-of-way that the Government determines, pursuant to Article III of this Agreement, to be required for the implementation, operation, and maintenance of the Project. Should the Government and the Non-Federal Sponsor determine to initiate or continue with implementation after considering any liability that may arise under CERCLA, the Non-Federal Sponsor shall be responsible, as between the Government and the Non-Federal Sponsor, for the costs of clean-up and response, to include the costs of any studies and investigations necessary to determine an appropriate response to the contamination on lands, easements or rights of way that the Government determines, pursuant to Article III of this Agreement, to be required for the implementation, operation, and maintenance of the Project, except for any such lands, easements, or rights-of-way owned by the United States and administered by the Government. Such costs shall not be considered a part of total project costs. In the event the Non-Federal Sponsor fails to provide any funds necessary to pay for clean up and response costs or to otherwise discharge the Non-Federal Sponsor's responsibilities under this paragraph upon direction by the Government, the Government may, in its sole discretion, either terminate this Agreement for the convenience of the Government, suspend future performance under this Agreement, or continue work on the Project. The Government shall be responsible, as between the Government and the Non-Federal Sponsor, for the costs of clean-up and response, to include the costs of any studies and investigations necessary to determine an appropriate response to the contamination on lands, easements, or rights of way owned by the United States and administered by the Government. All costs incurred by the Government shall be included in total project costs and cost shared in accordance with the terms of this Agreement.

D. The Non-Federal Sponsor and the Government shall consult with each other in accordance with Article V of this Agreement in an effort to ensure that responsible parties bear any necessary cleanup and response costs as defined in CERCLA. Any decision made pursuant to paragraph C. of this Article shall not relieve any third party from any liability that may arise under CERCLA.

E. As between the Government and the Non-Federal Sponsor, the Non-Federal Sponsor shall be considered the operator of the Project for purposes of CERCLA liability. To the maximum extent practicable, the Non-Federal Sponsor shall operate, maintain, repair, replace, and rehabilitate the Project in a manner that will not cause liability to arise under CERCLA.

ARTICLE XVI - NOTICES

A. Any notice, request, demand, or other communication required or permitted to be

given under this Agreement shall be deemed to have been duly given if in writing and either delivered personally, or by telegram, or mailed by first-class, registered, or certified mail, as follows:

If to the Non-Federal Sponsor:

City of San Antonio
114 W. Commerce
PO Box 839966
San Antonio, TX 78283-3966

If to the Government:

USACE attn: Olmos Creek Project Manager
819 Taylor Street Rm 3A28
Fort Worth TX, 76102

B. A party may change the address to which such communications are to be directed by giving written notice to the other party in the manner provided in this Article.

C. Any notice, request, demand, or other communication made pursuant to this Article shall be deemed to have been received by the addressee at the earlier of such time as it is actually received or seven calendar days after it is mailed.

ARTICLE XVII - CONFIDENTIALITY

To the extent permitted by the laws governing each party, the parties agree to maintain the confidentiality of exchanged information when requested to do so by the providing party.

ARTICLE XVIII - HISTORIC PRESERVATION

A. The costs of identification, survey and evaluation of historic properties shall be included in total project costs and cost shared in accordance with the provisions of this Agreement.

B. Pursuant to Section 7(a) of Public Law 93-291 (16 U.S.C. Section 469c(a)), the costs of mitigation and data recovery activities associated with historic preservation shall be borne entirely by the Government and shall not be included in total project costs, up to the statutory limit of one percent of the total amount the Government is authorized to expend for the Project.

C. The Government shall not incur costs for mitigation and data recovery that exceed the statutory one percent limit specified in paragraph B. of this Article unless and until the Assistant

Secretary of the Army (Civil Works) has waived that limit in accordance with Section 208(3) of Public Law 96-515 (16 U.S.C. Section 469c-2(3)). Any costs of mitigation and data recovery that exceed the one percent limit shall be included in total project costs and shall be cost shared in accordance with the provisions of this Agreement.

ARTICLE XIX - LIMITATION ON GOVERNMENT EXPENDITURES

Notwithstanding any other provisions of this Agreement, the Government's financial participation in the Project is limited to \$5,000,000. The Non-Federal Sponsor shall be responsible for all total project costs that exceed this amount. In lieu of further construction of the Project at the Non-Federal Sponsor's expense, the Government shall, at the request of the Non-Federal Sponsor suspend construction or terminate this Agreement in accordance with Article XIV.B. of this Agreement. To provide for this eventuality, the Government may reserve a percentage of total Federal funds available for the Project and an equal percentage of the total funds contributed by the Non-Federal Sponsor in accordance with Article II.D. of this Agreement as a contingency to pay costs of termination, including any costs of contract claims and contract modifications.

ARTICLE XX - OBLIGATIONS OF FUTURE APPROPRIATIONS

A. Nothing herein shall constitute, nor be deemed to constitute, an obligation of future appropriations by the Council of the City of San Antonio.

B. The Non-Federal Sponsor intends to satisfy its obligations under this Agreement. The Non-Federal Sponsor shall include in its budget request or otherwise propose, for each fiscal period, appropriations sufficient to cover the Non-Federal Sponsor's obligations under this Agreement for each year, and will use all reasonable and lawful means to secure the appropriations for that year biennium sufficient to make the payments necessary to fulfill its obligations hereunder. The Non-Federal Sponsor reasonably believes that funds in amounts sufficient to discharge these obligations can and will lawfully be appropriated and made available for this purpose. In the event the budget or other means of appropriations does not provide funds in sufficient amounts to discharge these obligations, the Non-Federal Sponsor shall use its best efforts to satisfy any requirements for payments under this Agreement from any other source of funds legally available for this purpose. Further, if the Non-Federal Sponsor is unable to satisfy its obligations hereunder, the Government may exercise any legal rights it has to protect the Government's interests related to this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, which shall become effective upon the date it is signed by the District Engineer.

DEPARTMENT OF THE ARMY

CITY OF SAN ANTONIO

BY: _____
CHRISTOPHER W. MARTIN
Colonel, Corps of Engineers
District Engineer
Fort Worth District

BY: _____
Emil Moncivais
Planning Director
City of San Antonio

DATE: _____

DATE: _____

CERTIFICATE OF AUTHORITY

I, _____, do hereby certify that I am the principal legal officer of the City of San Antonio, that the City of San Antonio is a legally constituted public body with full authority and legal capability to perform the terms of the Agreement between the Department of the Army and the City of San Antonio in connection with the Olmos Creek Section 206 Aquatic Ecosystem Restoration Project, and to pay damages in accordance with the terms of this Agreement, if necessary, in the event of the failure to perform, and that the persons who have executed this Agreement on behalf of the City of San Antonio have acted within their statutory authority.

IN WITNESS WHEREOF, I have made and executed this certification this
_____ day of _____, 20 .

[TYPED NAME]

City Attorney

CERTIFICATION REGARDING LOBBYING

The undersigned certifies, to the best of his or her knowledge and belief that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Emil Moncivais
Planning Director

DATE: _____

CERTIFICATION OF LEGAL REVIEW

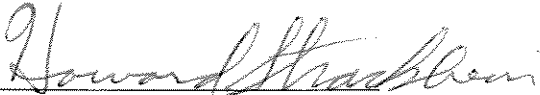
The Project Cooperation Agreement (PCA) for the Olmos Creek Section 206 Aquatic Ecosystem Restoration Project has been fully reviewed by the Office of Counsel, USAED, Fort Worth District, Fort Worth, Texas, and contains no deviations from the current Section 206 PCA model agreement.

Fort Worth District Office of Counsel

DATE:_____

CERTIFICATION OF LEGAL REVIEW

The Project Cooperation Agreement (PCA) for the Olmos Creek Section 206 Aquatic Ecosystem Restoration Project has been fully reviewed by the Office of Counsel, USAED, Fort Worth District, Fort Worth, Texas, and contains no deviations from the current Section 206 PCA model agreement.


Fort Worth District Office of Counsel

DATE: Aug. 29, 2006

PROJECT COOPERATION AGREEMENT
BETWEEN
THE DEPARTMENT OF THE ARMY
AND
THE CITY OF SAN ANTONIO
FOR THE
OLMOS CREEK
AQUATIC ECOSYSTEM RESTORATION PROJECT

THIS AGREEMENT is entered into this _____ day of _____, 20 __, by and between the Department of the Army (hereinafter the "Government"), represented by the U.S. Army Engineer for the Fort Worth District (hereinafter the "District Engineer") and the City of San Antonio (hereinafter the "Non-Federal Sponsor"), represented by the Planning Director, City of San Antonio

WITNESSETH, THAT:

WHEREAS, this Project is authorized by Section 206 of the Water Resources Development Act of 1996, Public Law 104-303, as amended;

WHEREAS, Section 206 of the Water Resources Development Act of 1996, Public Law 104-303, as amended, authorizes the Secretary of the Army to carry out an aquatic ecosystem restoration and protection project if the Secretary determines that the project will improve the quality of the environment, is in the public interest, and is cost-effective;

WHEREAS, the Government and the Non-Federal Sponsor desire to enter into a Project Cooperation Agreement for implementation of the Olmos Creek Aquatic Ecosystem Restoration Project (hereinafter the "Project", as defined in Article I.A. of this Agreement);

WHEREAS, Section 206(b) of the Water Resources Development Act of 1996, Public Law 104-303, as amended, specifies the cost-sharing requirements applicable to this Project;

WHEREAS, Section 206(c) of the Water Resources Development Act of 1996, Public Law 104-303, as amended, provides that the Secretary of the Army shall not commence construction of any project, or separable element thereof, under the Section 206 authority, until each non-Federal sponsor has entered into a binding agreement to pay the non-Federal share of the costs of construction required by Section 206(b) and to pay 100 percent of any operation, maintenance, replacement, and rehabilitation costs with respect to the project in accordance with regulations prescribed by the Secretary;

WHEREAS, the Government and Non-Federal Sponsor have the full authority and capability to perform as hereinafter set forth and intend to cooperate in cost-sharing and

financing of the implementation of the Project in accordance with the terms of this Agreement.

NOW, THEREFORE, the Government and the Non-Federal Sponsor agree as follows:

ARTICLE I - DEFINITIONS AND GENERAL PROVISIONS

For purposes of this Agreement:

A. The term "Project" shall mean restoration of instream habitat and the riparian corridor in and along Olmos Creek between San Pedro Avenue and Olmos Dam. Instream habitat will be restored through erosion control techniques and an increase in stream shade. Riparian corridor restoration will be accomplished through invasive / exotic plant control, selective thinning, and accompanied by woody and herbaceous plantings as generally described in the Olmos Creek Section 206 Aquatic Ecosystem Restoration Planning Design Report, dated September 20, 2006, and approved by the Fort Worth District Engineer, on _____, 20__ .

B. The term "total project costs" shall mean all costs incurred by the Non-Federal Sponsor and the Government in accordance with the terms of this Agreement directly related to implementation of the Project. Subject to the provisions of this Agreement, the term shall include, but is not necessarily limited to, feasibility phase planning costs; all engineering and design costs, including those incurred in the feasibility phase; the costs of investigations to identify the existence and extent of hazardous substances in accordance with Article XV.A. of this Agreement; the costs incurred by the Government for clean-up and response in accordance with Article XV.C. of this Agreement; costs of historic preservation activities in accordance with Article XVIII.A. of this Agreement; actual implementation costs; supervision and administration costs; costs of participation in the Project Coordination Team in accordance with Article V of this Agreement; costs of contract dispute settlements or awards; the value of lands, easements, rights-of-way, relocations, and suitable borrow and dredged or excavated material disposal areas for which the Government affords credit in accordance with Article IV of this Agreement; and costs of audit in accordance with Article X of this Agreement. The term does not include any costs for operation, maintenance, repair, replacement, or rehabilitation; any costs due to betterments; or any costs of dispute resolution under Article VII of this Agreement.

C. The term "financial obligation for implementation" shall mean a financial obligation of the Government, other than an obligation pertaining to the provision of lands, easements, rights-of-way, relocations, and borrow and dredged or excavated material disposal areas, that results or would result in a cost that is or would be included in total project costs.

D. The term "implementation" shall mean all actions required to carry out the Project.

E. The term "non-Federal proportionate share" shall mean the ratio of the Non-Federal Sponsor's total cash contribution required in accordance with Article II.D.2. of this Agreement to

total financial obligations for implementation as projected by the Government.

F. The term "period of implementation" shall mean the time from the effective date of this Agreement to the date that the District Engineer notifies the Non-Federal Sponsor in writing of the Government's determination that implementation of the Project is complete.

G. The term "highway" shall mean any public highway, roadway, street, or way, including any bridge thereof.

H. The term "relocation" shall mean providing a functionally equivalent facility to the owner of an existing utility, cemetery, highway or other public facility, or railroad when such action is authorized in accordance with applicable legal principles of just compensation. Providing a functionally equivalent facility may take the form of alteration, lowering, raising, or replacement and attendant removal of the affected facility or part thereof.

I. The term "fiscal year" shall mean one fiscal year of the Government. The Government fiscal year begins on October 1 and ends on September 30.

J. The term "functional portion of the Project" shall mean a portion of the Project that is suitable for tender to the Non-Federal Sponsor to operate and maintain in advance of completion of the entire Project. For a portion of the Project to be suitable for tender, the District Engineer must notify the Non-Federal Sponsor in writing of the Government's determination that the portion of the Project is complete and can function independently and for a useful purpose, although the balance of the Project is not complete.

K. The term "betterment" shall mean a change in the design and construction of an element of the Project resulting from the application of standards that the Government determines exceed those that the Government would otherwise apply for accomplishing the design and construction of that element.

ARTICLE II - OBLIGATIONS OF THE GOVERNMENT AND THE NON-FEDERAL SPONSOR

A. The Government, subject to the availability of funds and using those funds and funds provided by the Non-Federal Sponsor, shall expeditiously implement the Project, applying those procedures usually applied to Federal projects, pursuant to Federal laws, regulations, and policies.

1. The Government shall afford the Non-Federal Sponsor the opportunity to review and comment on the solicitations for all contracts, including relevant plans and specifications, prior to the Government's issuance of such solicitations. The Government shall not issue the solicitation for the first contract for implementation until the Non-Federal Sponsor

has confirmed in writing its willingness to proceed with the Project. To the extent possible, the Government shall afford the Non-Federal Sponsor the opportunity to review and comment on all contract modifications, including change orders, prior to the issuance to the contractor of a Notice to Proceed. In any instance where providing the Non-Federal Sponsor with notification of a contract modification or change order is not possible prior to issuance of the Notice to Proceed, the Government shall provide such notification in writing at the earliest date possible. To the extent possible, the Government also shall afford the Non-Federal Sponsor the opportunity to review and comment on all contract claims prior to resolution thereof. The Government shall consider in good faith the comments of the Non-Federal Sponsor, but the contents of solicitations, award of contracts, execution of contract modifications, issuance of change orders, resolution of contract claims, and performance of all work on the Project (whether the work is performed under contract or by Government personnel), shall be exclusively within the control of the Government.

2. Throughout the period of implementation, the District Engineer shall furnish the Non-Federal Sponsor with a copy of the Government's Written Notice of Acceptance of Completed Work for each contract for the Project.

B. The Non-Federal Sponsor may request the Government to accomplish betterments. Such requests shall be in writing and shall describe the betterments requested to be accomplished. If the Government in its sole discretion elects to accomplish the requested betterments or any portion thereof, it shall so notify the Non-Federal Sponsor in a writing that sets forth any applicable terms and conditions, which must be consistent with this Agreement. In the event of conflict between such a writing and this Agreement, this Agreement shall control. The Non-Federal Sponsor shall be solely responsible for all costs due to the requested betterments and shall pay all such costs in accordance with Article VI.C. of this Agreement.

C. When the District Engineer determines that the entire Project is complete or that a portion of the Project has become a functional portion of the Project, the District Engineer shall so notify the Non-Federal Sponsor in writing and furnish the Non-Federal Sponsor with an Operation, Maintenance, Repair, Replacement, and Rehabilitation Manual (hereinafter the "OMRR&R Manual") and with copies of all of the Government's Written Notices of Acceptance of Completed Work for all contracts for the Project or the functional portion of the Project that have not been provided previously. Upon such notification, the Non-Federal Sponsor shall operate, maintain, repair, replace, and rehabilitate the entire Project or the functional portion of the Project in accordance with Article VIII of this Agreement.

D. The Non-Federal Sponsor shall contribute 35 percent of total project costs in accordance with the provisions of this paragraph.

1. In accordance with Article III of this Agreement, the Non-Federal Sponsor shall provide all lands, easements, rights-of-way, and suitable borrow and dredged or excavated material disposal areas that the Government determines the Non-Federal Sponsor must provide

for the implementation, operation, and maintenance of the Project, and shall perform or ensure performance of all relocations that the Government determines to be necessary for the implementation, operation, and maintenance of the Project.

2. If the Government projects that the value of the Non-Federal Sponsor's contributions under paragraph D.1. of this Article and Articles V, X, and XV.A. of this Agreement will be less than 35 percent of total project costs, the Non-Federal Sponsor shall provide an additional cash contribution, in accordance with Article VI.B. of this Agreement, in the amount necessary to make the Non-Federal Sponsor's total contribution equal to 35 percent of total project costs.

3. If the Government determines that the value of the Non-Federal Sponsor's contributions provided under paragraphs D.1. and D.2. of this Article and Articles V, X, and XV.A. of this Agreement has exceeded 35 percent of total project costs, the Government, subject to the availability of funds, shall reimburse the Non-Federal Sponsor for any such value in excess of 35 percent of total project costs. After such a determination, the Government, in its sole discretion, may provide any remaining Project lands, easements, rights-of-way, and suitable borrow and dredged excavated material disposal areas and perform any remaining Project relocations on behalf of the Non-Federal Sponsor. Notwithstanding the provision of lands, easements, rights-of-way, and suitable borrow and dredged or excavated material disposal areas or performance of relocations by the Government under this paragraph, the Non-Federal Sponsor shall be responsible, as between the Government and the Non-Federal Sponsor, for the costs of cleanup and response in accordance with Article XV.C. of this Agreement.

E. The Non-Federal Sponsor may request the Government to provide lands, easements, rights-of-way, and suitable borrow and dredged or excavated material disposal areas or perform relocations on behalf of the Non-Federal Sponsor. Such requests shall be in writing and shall describe the services requested to be performed. If in its sole discretion the Government elects to perform the requested services or any portion thereof, it shall so notify the Non-Federal Sponsor in a writing that sets forth any applicable terms and conditions, which must be consistent with this Agreement. In the event of conflict between such a writing and this Agreement, this Agreement shall control. The Non-Federal Sponsor shall be solely responsible for all costs of the requested services and shall pay all such costs in accordance with Article VI.C. of this Agreement. Notwithstanding the provision of lands, easements, rights-of-way, and suitable borrow and dredged or excavated material disposal areas or performance of relocations by the Government under this paragraph, the Non-Federal Sponsor shall be responsible, as between the Government and the Non-Federal Sponsor, for the costs of cleanup and response in accordance with Article XV.C. of this Agreement.

F. The Government shall perform a final accounting in accordance with Article VI.D. of this Agreement to determine the contributions provided by the Non-Federal Sponsor in accordance with paragraphs B., D., and E. of this Article and Articles V, X, and XV.A. of this Agreement and to determine whether the Non-Federal Sponsor has met its obligations under

paragraphs B., D., and E. of this Article.

G. The Non-Federal Sponsor shall not use Federal funds to meet its share of total project costs under this Agreement unless the Federal granting agency verifies in writing that the expenditure of such funds is expressly authorized by statute.

ARTICLE III - LANDS, RELOCATIONS, DISPOSAL AREAS, AND PUBLIC LAW 91-646 COMPLIANCE

A. The Government, after consultation with the Non-Federal Sponsor, shall determine the lands, easements, and rights-of-way required for the implementation, operation, and maintenance of the Project, including those required for relocations, borrow materials, and dredged or excavated material disposal. The Government in a timely manner shall provide the Non-Federal Sponsor with general written descriptions, including maps as appropriate, of the lands, easements, and rights-of-way that the Government determines the Non-Federal Sponsor must provide, in detail sufficient to enable the Non-Federal Sponsor to fulfill its obligations under this paragraph, and shall provide the Non-Federal Sponsor with a written notice to proceed with acquisition of such lands, easements, and rights-of-way. Prior to the end of the period of implementation, the Non-Federal Sponsor shall acquire all lands, easements, and rights-of-way set forth in such descriptions. Furthermore, prior to issuance of the solicitation for each construction contract, the Non-Federal Sponsor shall provide the Government with authorization for entry to all lands, easements, and rights-of-way the Government determines the Non-Federal Sponsor must provide for that contract. The Non-Federal Sponsor shall ensure that lands, easements, and rights-of-way that the Government determines to be required for the operation and maintenance of the Project and that were provided by the Non-Federal Sponsor are retained in public ownership for uses compatible with the authorized purposes of the Project.

B. The Government, after consultation with the Non-Federal Sponsor, shall determine the improvements required on lands, easements, and rights-of-way to enable the proper disposal of dredged or excavated material associated with the implementation, operation, and maintenance of the Project. Such improvements may include, but are not necessarily limited to, retaining dikes, wasteweirs, bulkheads, embankments, monitoring features, stilling basins, and de-watering pumps and pipes. The Government in a timely manner shall provide the Non-Federal Sponsor with general written descriptions of such improvements in detail sufficient to enable the Non-Federal Sponsor to fulfill its obligations under this paragraph, and shall provide the Non-Federal Sponsor with a written notice to proceed with construction of such improvements. Prior to the end of the period of implementation, the Non-Federal Sponsor shall provide all improvements set forth in such descriptions. Furthermore, prior to issuance of the solicitation for each Government construction contract, the Non-Federal Sponsor shall prepare plans and specifications for all improvements the Government determines to be required for the proper disposal of dredged or excavated material under that contract, submit such plans and specifications to the Government for approval, and provide such improvements in accordance

with the approved plans and specifications.

C. The Government, after consultation with the Non-Federal Sponsor, shall determine the relocations necessary for the implementation, operation, and maintenance of the Project, including those necessary to enable the removal of borrow materials and the proper disposal of dredged or excavated material. The Government in a timely manner shall provide the Non-Federal Sponsor with general written descriptions, including maps as appropriate, of such relocations in detail sufficient to enable the Non-Federal Sponsor to fulfill its obligations under this paragraph, and shall provide the Non-Federal Sponsor with a written notice to proceed with such relocations. Prior to the end of the period of implementation, the Non-Federal Sponsor shall perform or ensure the performance of all relocations as set forth in such descriptions. Furthermore, prior to issuance of the solicitation for each Government construction contract, the Non-Federal Sponsor shall prepare or ensure the preparation of plans and specifications for, and perform or ensure the performance of, all relocations the Government determines to be necessary for that contract.

D. The Non-Federal Sponsor in a timely manner shall provide the Government with such documents as are sufficient to enable the Government to determine the value of any contribution provided pursuant to paragraphs A., B., or C. of this Article. Upon receipt of such documents the Government, in accordance with Article IV of this Agreement and in a timely manner, shall determine the value of such contribution, include such value in total project costs, and afford credit for such value toward the Non-Federal Sponsor's share of total project costs.

E. The Non-Federal Sponsor shall comply with the applicable provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646, as amended by Title IV of the Surface Transportation and Uniform Relocation Assistance Act of 1987 (Public Law 100-17), and the Uniform Regulations contained in 49 C.F.R. Part 24, in acquiring lands, easements, and rights-of-way required for the implementation, operation, and maintenance of the Project, including those necessary for relocations, borrow materials, and dredged or excavated material disposal, and shall inform all affected persons of applicable benefits, policies, and procedures in connection with said Act.

ARTICLE IV - CREDIT FOR LANDS, RELOCATIONS, AND DISPOSAL AREAS

A. The Non-Federal Sponsor shall receive credit toward its share of total project costs for the value of the lands, easements, rights-of-way, and suitable borrow and dredged or excavated material disposal areas that the Non-Federal Sponsor must provide pursuant to Article III of this Agreement, and for the value of the relocations that the Non-Federal Sponsor must perform or for which it must ensure performance pursuant to Article III of this Agreement. However, the Non-Federal Sponsor shall not receive credit for the value of any lands, easements, rights-of-way, relocations, or borrow and dredged or excavated material disposal areas that have been provided previously as an item of cooperation for another Federal project. The Non-

Federal Sponsor also shall not receive credit for the value of lands, easements, rights-of-way, relocations, or borrow and dredged or excavated material disposal areas to the extent that such items are provided using Federal funds unless the Federal granting agency verifies in writing that such credit is expressly authorized by statute.

B. For the sole purpose of affording credit in accordance with this Agreement, the value of lands, easements, and rights-of-way, including those necessary for relocations, borrow materials, and dredged or excavated material disposal, shall be the fair market value of the real property interests, plus certain incidental costs of acquiring those interests, as determined in accordance with the provisions of this paragraph.

1. Date of Valuation. The fair market value of lands, easements, or rights-of-way owned by the Non-Federal Sponsor on the effective date of this Agreement shall be the fair market value of such real property interests as of the date the Non-Federal Sponsor provides the Government with authorization for entry thereto. The fair market value of lands, easements, or rights-of-way acquired by the Non-Federal Sponsor after the effective date of this Agreement shall be the fair market value of such real property interests at the time the interests are acquired.

2. General Valuation Procedure. Except as provided in paragraph B.3. of this Article, the fair market value of lands, easements, or rights-of-way shall be determined in accordance with paragraph B.2.a. of this Article, unless thereafter a different amount is determined to represent fair market value in accordance with paragraph B.2.b. of this Article.

a. The Non-Federal Sponsor shall obtain, for each real property interest, an appraisal that is prepared by a qualified appraiser who is acceptable to the Non-Federal Sponsor and the Government. The appraisal must be prepared in accordance with the applicable rules of just compensation, as specified by the Government. The fair market value shall be the amount set forth in the Non-Federal Sponsor's appraisal, if such appraisal is approved by the Government. In the event the Government does not approve the Non-Federal Sponsor's appraisal, the Non-Federal Sponsor may obtain a second appraisal, and the fair market value shall be the amount set forth in the Non-Federal Sponsor's second appraisal, if such appraisal is approved by the Government. In the event the Government does not approve the Non-Federal Sponsor's second appraisal, or the Non-Federal Sponsor chooses not to obtain a second appraisal, the Government shall obtain an appraisal, and the fair market value shall be the amount set forth in the Government's appraisal, if such appraisal is approved by the Non-Federal Sponsor. In the event the Non-Federal Sponsor does not approve the Government's appraisal, the Government, after consultation with the Non-Federal Sponsor, shall consider the Government's and the Non-Federal Sponsor's appraisals and determine an amount based thereon, which shall be deemed to be the fair market value.

b. Where the amount paid or proposed to be paid by the Non-Federal Sponsor for the real property interest exceeds the amount determined pursuant to paragraph B.2.a. of this Article, the Government, at the request of the Non-Federal Sponsor, shall consider

all factors relevant to determining fair market value and, in its sole discretion, after consultation with the Non-Federal Sponsor, may approve in writing an amount greater than the amount determined pursuant to paragraph B.2.a. of this Article, but not to exceed the amount actually paid or proposed to be paid. If the Government approves such an amount, the fair market value shall be the lesser of the approved amount or the amount paid by the Non-Federal Sponsor, but no less than the amount determined pursuant to paragraph B.2.a. of this Article.

3. Eminent Domain Valuation Procedure. For lands, easements, or rights-of-way acquired by eminent domain proceedings instituted after the effective date of this Agreement, the Non-Federal Sponsor shall, prior to instituting such proceedings, submit to the Government notification in writing of its intent to institute such proceedings and an appraisal of the specific real property interests to be acquired in such proceedings. The Government shall have 60 days after receipt of such a notice and appraisal within which to review the appraisal, if not previously approved by the Government in writing.

a. If the Government previously has approved the appraisal in writing, or if the Government provides written approval of, or takes no action on, the appraisal within such 60-day period, the Non-Federal Sponsor shall use the amount set forth in such appraisal as the estimate of just compensation for the purpose of instituting the eminent domain proceeding.

b. If the Government provides written disapproval of the appraisal, including the reasons for disapproval, within such 60-day period, the Government and the Non-Federal Sponsor shall consult in good faith to promptly resolve the issues or areas of disagreement that are identified in the Government's written disapproval. If, after such good faith consultation, the Government and the Non-Federal Sponsor agree as to an appropriate amount, then the Non-Federal Sponsor shall use that amount as the estimate of just compensation for the purpose of instituting the eminent domain proceeding. If, after such good faith consultation, the Government and the Non-Federal Sponsor cannot agree as to an appropriate amount, then the Non-Federal Sponsor may use the amount set forth in its appraisal as the estimate of just compensation for the purpose of instituting the eminent domain proceeding.

c. For lands, easements, or rights-of-way acquired by eminent domain proceedings instituted in accordance with sub-paragraph B.3. of this Article, fair market value shall be either the amount of the court award for the real property interests taken, to the extent the Government determined such interests are required for the implementation, operation, and maintenance of the Project, or the amount of any stipulated settlement or portion thereof that the Government approves in writing.

4. Incidental Costs. For lands, easements, or rights-of-way acquired by the Non-Federal Sponsor within a five-year period preceding the effective date of this Agreement, or at any time after the effective date of this Agreement, the value of the interest shall include the documented incidental costs of acquiring the interest, as determined by the Government, subject to an audit in accordance with Article X.C. of this Agreement to determine reasonableness,

allocability, and allowability of costs. Such incidental costs shall include, but not necessarily be limited to, closing and title costs, appraisal costs, survey costs, attorney's fees, plat maps, and mapping costs, as well as the actual amounts expended for payment of any Public Law 91-646 relocation assistance benefits provided in accordance with Article III.E. of this Agreement.

C. After consultation with the Non-Federal Sponsor, the Government shall determine the value of relocations in accordance with the provisions of this paragraph.

1. For a relocation other than a highway, the value shall be only that portion of relocation costs that the Government determines is necessary to provide a functionally equivalent facility, reduced by depreciation, as applicable, and by the salvage value of any removed items.

2. For a relocation of a highway, the value shall be only that portion of relocation costs that would be necessary to accomplish the relocation in accordance with the design standard that the State of Texas would apply under similar conditions of geography and traffic load, reduced by the salvage value of any removed items.

3. Relocation costs shall include, but not necessarily be limited to, actual costs of performing the relocation; planning, engineering and design costs; supervision and administration costs; and documented incidental costs associated with performance of the relocation, but shall not include any costs due to betterments, as determined by the Government, nor any additional cost of using new material when suitable used material is available. Relocation costs shall be subject to an audit in accordance with Article X.C. of this Agreement to determine reasonableness, allocability, and allowability of costs.

4. Any credit afforded for the value of relocations performed within the Project boundaries is subject to satisfactory compliance with applicable Federal labor laws covering non-Federal construction, including, but not limited to, 40 U.S.C. 3141-3148 and 40 U.S.C. 3701-3708 (revising, codifying and enacting without substantive change the provisions of the Davis-Bacon Act (formerly 40 U.S.C. 276a *et seq.*), the Contract Work Hours and Safety Standards Act (formerly 40 U.S.C. 327 *et seq.*) and the Copeland Anti-Kickback Act (formerly 40 U.S.C. 276c)). Crediting may be withheld, in whole or in part, as a result of the Non-Federal Sponsor's failure to comply with its obligations under these laws.

D. The value of the improvements made to lands, easements, and rights-of-way for the proper disposal of dredged or excavated material shall be the costs of the improvements, as determined by the Government, subject to an audit in accordance with Article X.C. of this Agreement to determine reasonableness, allocability, and allowability of costs. Such costs shall include, but not necessarily be limited to, actual costs of providing the improvements; planning, engineering and design costs; supervision and administration costs; and documented incidental costs associated with providing the improvements, but shall not include any costs due to betterments, as determined by the Government.

ARTICLE V - PROJECT COORDINATION TEAM

A. To provide for consistent and effective communication, the Non-Federal Sponsor and the Government, not later than 30 days after the effective date of this Agreement, shall appoint named senior representatives to a Project Coordination Team. Thereafter, the Project Coordination Team shall meet regularly until the end of the period of implementation. The Government's Project Manager and a counterpart named by the Non-Federal Sponsor shall co-chair the Project Coordination Team.

B. The Government's Project Manager and the Non-Federal Sponsor's counterpart shall keep the Project Coordination Team informed of the progress of implementation and of significant pending issues and actions, and shall seek the views of the Project Coordination Team on matters that the Project Coordination Team generally oversees.

C. Until the end of the period of implementation, the Project Coordination Team shall generally oversee the Project, including issues related to design; plans and specifications; scheduling; real property and relocation requirements; real property acquisition; contract awards and modifications; contract costs; the application of and compliance with 40 U.S.C. 3141-3148 and 40 U.S.C. 3701-3708 (revising, codifying and enacting without substantive change the provisions of the Davis-Bacon Act (formerly 40 U.S.C. 276a *et seq.*), the Contract Work Hours and Safety Standards Act (formerly 40 U.S.C. 327 *et seq.*) and the Copeland Anti-Kickback Act (formerly 40 U.S.C. 276c)) for relocations; the Government's cost projections; final inspection of the entire Project or functional portions of the Project; preparation of the proposed OMR&R Manual; anticipated requirements and needed capabilities for performance of operation, maintenance, repair, replacement, and rehabilitation of the Project; and other related matters.

D. The Project Coordination Team may make recommendations that it deems warranted to the District Engineer on matters that the Project Coordination Team generally oversees, including suggestions to avoid potential sources of dispute. The Government in good faith shall consider the recommendations of the Project Coordination Team. The Government, having the legal authority and responsibility for implementation of the Project, has the discretion to accept, reject, or modify the Project Coordination Team's recommendations.

E. The costs of participation in the Project Coordination Team shall be included in total project costs and cost shared in accordance with the provisions of this Agreement.

ARTICLE VI - METHOD OF PAYMENT

A. The Government shall maintain current records of contributions provided by the

parties and current projections of total project costs and costs due to betterments. At least quarterly, the Government shall provide the Non-Federal Sponsor with a report setting forth all contributions provided to date and the current projections of total project costs, of total costs due to betterments, of the components of total project costs, of each party's share of total project costs, of the Non-Federal Sponsor's total cash contributions required in accordance with Articles II.B., II.D., and II.E. of this Agreement, and of the non-Federal proportionate share. On the effective date of this Agreement, total project costs are projected to be \$1,102,559, and the Non-Federal Sponsor's cash contribution required under Article II.D. of this Agreement is projected to be \$0. Such amounts are estimates subject to adjustment by the Government and are not to be construed as the total financial responsibilities of the Government and the Non-Federal Sponsor.

B. The Non-Federal Sponsor shall provide the cash contribution required under Article II.D.2. of this Agreement in accordance with the following provisions: Not less than 30 calendar days prior to the scheduled date for issuance of the solicitation for the first construction contract, the Government shall notify the Non-Federal Sponsor in writing of such scheduled date and the funds the Government determines to be required from the Non-Federal Sponsor to meet its projected cash contribution under Article II.D.2. of this Agreement. Not later than such scheduled date, the Non-Federal Sponsor shall provide the Government with the full amount of the required funds by delivering a check payable to "FAO, USAED, Fort Worth District" to the District Engineer, or verifying to the satisfaction of the Government that the Non-Federal Sponsor has deposited the required funds in an escrow or other account acceptable to the Government, with interest accruing to the Non-Federal Sponsor, or presenting the Government with an irrevocable letter of credit acceptable to the Government for the required funds, or providing an Electronic Funds Transfer of the required funds in accordance with procedures established by the Government. The Government shall draw from the funds provided by the Non-Federal Sponsor such sums as the Government deems necessary to cover: (a) the non-Federal proportionate share of financial obligations for implementation incurred prior to commencement of the period of implementation; and (b) the non-Federal proportionate share of financial obligations for implementation as they are incurred during the period of implementation. In the event the Government determines that the Non-Federal Sponsor must provide additional funds to meet the Non-Federal Sponsor's cash contribution, the Government shall notify the Non-Federal Sponsor in writing of the additional funds required and provide an explanation of why additional funds are required. Within 60 calendar days after receipt of such notice, the Non-Federal Sponsor shall provide the Government with the full amount of the additional required funds through any of the payment mechanisms specified above.

C. In advance of the Government incurring any financial obligation associated with additional work under Article II.B. or II.E. of this Agreement, the Non-Federal Sponsor shall provide the Government with the full amount of the funds required to pay for such additional work through any of the payment mechanisms specified in B.1. of this Article. The Government shall draw from the funds provided by the Non-Federal Sponsor such sums as the Government deems necessary to cover the Government's financial obligations for such additional work as they are incurred. In the event the Government determines that the Non-Federal Sponsor must

provide additional funds to meet its cash contribution, the Government shall notify the Non-Federal Sponsor in writing of the additional funds required and provide an explanation of why additional funds are required. Within 30 calendar days from receipt of such notice, the Non-Federal Sponsor shall provide the Government with the full amount of the additional required funds through any of the payment mechanisms specified in B.1. of this Article.

D. Upon completion of the Project or termination of this Agreement, and upon resolution of all relevant claims and appeals, the Government shall conduct a final accounting and furnish the Non-Federal Sponsor with the results of the final accounting. The final accounting shall determine total project costs, each party's contribution provided thereto, and each party's required share thereof. The final accounting also shall determine costs due to betterments and the Non-Federal Sponsor's cash contribution provided pursuant to Article II.B. of this Agreement.

1. In the event the final accounting shows that the total contribution provided by the Non-Federal Sponsor is less than its required share of total project costs plus costs due to any betterments provided in accordance with Article II.B. of this Agreement, the Non-Federal Sponsor shall, no later than 90 calendar days after receipt of written notice, make a payment to the Government of whatever sum is required to meet the Non-Federal Sponsor's required share of total project costs plus costs due to any betterments provided in accordance with Article II.B. of this Agreement by delivering a check payable to "FAO, USAED, Fort Worth District" to the District Engineer or providing an Electronic Funds Transfer in accordance with procedures established by the Government.

2. In the event the final accounting shows that the total contribution provided by the Non-Federal Sponsor exceeds its required share of total project costs plus costs due to any betterments provided in accordance with Article II.B. of this Agreement, the Government shall, subject to the availability of funds, refund the excess to the Non-Federal Sponsor no later than 90 calendar days after the final accounting is complete. In the event existing funds are not available to refund the excess to the Non-Federal Sponsor, the Government shall seek such appropriations as are necessary to make the refund.

ARTICLE VII - DISPUTE RESOLUTION

As a condition precedent to a party bringing any suit for breach of this Agreement, that party must first notify the other party in writing of the nature of the purported breach and seek in good faith to resolve the dispute through negotiation. If the parties cannot resolve the dispute through negotiation, they may agree to a mutually acceptable method of non-binding alternative dispute resolution with a qualified third party acceptable to both parties. The parties shall each pay 50 percent of any costs for the services provided by such a third party as such costs are incurred. The existence of a dispute shall not excuse the parties from performance pursuant to this Agreement.

ARTICLE VIII - OPERATION, MAINTENANCE, REPAIR, REPLACEMENT,
AND REHABILITATION (OMRR&R)

A. Upon notification in accordance with Article II.C. of this Agreement and for so long as the Project remains authorized, the Non-Federal Sponsor shall operate, maintain, repair, replace, and rehabilitate the entire Project or the functional portion of the Project, at no cost to the Government, in a manner compatible with the Project's authorized purposes and in accordance with applicable Federal and State laws as provided in Article XI of this Agreement and specific directions prescribed by the Government in the OMRR&R Manual and any subsequent amendments thereto.

B. The Non-Federal Sponsor hereby gives the Government a right to enter, at reasonable times and in a reasonable manner, upon property that the Non-Federal Sponsor owns or controls for access to the Project for the purpose of inspection and, if necessary, for the purpose of completing, operating, maintaining, repairing, replacing, or rehabilitating the Project. If an inspection shows that the Non-Federal Sponsor for any reason is failing to perform its obligations under this Agreement, the Government shall send a written notice describing the non-performance to the Non-Federal Sponsor. If, after 30 calendar days from receipt of the notice, the Non-Federal Sponsor continues to fail to perform, then the Government shall have the right to enter, at reasonable times and in a reasonable manner, upon property the Non-Federal Sponsor owns or controls for access to the Project for the purpose of completing, operating, maintaining, repairing, replacing, or rehabilitating the Project. No completion, operation, maintenance, repair, replacement, or rehabilitation by the Government shall operate to relieve the Non-Federal Sponsor's obligations as set forth in this Agreement, or to preclude the Government from pursuing any other remedy at law or equity to ensure faithful performance pursuant to this Agreement.

ARTICLE IX – HOLD AND SAVE

Subject to the provisions of Article XX of this Agreement, the Non-Federal Sponsor shall hold and save the Government free from all damages arising from the implementation, operation, maintenance, repair, replacement and rehabilitation of the Project, and any Project related betterments, except for damages due to the fault or negligence of the Government or its contractors.

ARTICLE X - MAINTENANCE OF RECORDS AND AUDIT

A. Not later than 60 calendar days after the effective date of this Agreement, the

Government and the Non-Federal Sponsor shall develop procedures for keeping books, records, documents, and other evidence pertaining to costs and expenses incurred pursuant to this Agreement. These procedures shall incorporate, and apply as appropriate, the standards for financial management systems set forth in the Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments at 32 C.F.R. Section 33.20. The Government and the Non-Federal Sponsor shall maintain such books, records, documents, and other evidence in accordance with these procedures and for a minimum of three years after the period of implementation and resolution of all relevant claims arising therefrom. To the extent permitted under applicable Federal laws and regulations, the Government and the Non-Federal Sponsor shall each allow the other to inspect such books, documents, records, and other evidence.

B. Pursuant to 32 C.F.R. Section 33.26, the Non-Federal Sponsor is responsible for complying with the Single Audit Act of 1984, 31 U.S.C. Sections 7501-7507, as implemented by Office of Management and Budget (OMB) Circular No. A-133 and Department of Defense Directive 7600.10. Upon request of the Non-Federal Sponsor and to the extent permitted under applicable Federal laws and regulations, the Government shall provide to the Non-Federal Sponsor and independent auditors any information necessary to enable an audit of the Non-Federal Sponsor's activities under this Agreement. The costs of any non-Federal audits performed in accordance with this paragraph shall be allocated in accordance with the provisions of OMB Circulars A-87 and A-133, and such costs as are allocated to the Project shall be included in total project costs and cost shared in accordance with the provisions of this Agreement.

C. In accordance with 31 U.S.C. Section 7503, the Government may conduct audits in addition to any audit that the Non-Federal Sponsor is required to conduct under the Single Audit Act. Any such Government audits shall be conducted in accordance with Government Auditing Standards and the cost principles in OMB Circular No. A-87 and other applicable cost principles and regulations. The costs of Government audits performed in accordance with this paragraph shall be included in total project costs and cost shared in accordance with the provisions of this Agreement.

ARTICLE XI - FEDERAL AND STATE LAWS

In the exercise of their respective rights and obligations under this Agreement, the Non-Federal Sponsor and the Government agree to comply with all applicable Federal and State laws and regulations, including, but not limited to: Section 601 of the Civil Rights Act of 1964, Public Law 88-352 (42 U.S.C. 2000d) and Department of Defense Directive 5500.11 issued pursuant thereto; Army Regulation 600-7, entitled "Nondiscrimination on the Basis of Handicap in Programs and Activities Assisted or Conducted by the Department of the Army"; and all applicable Federal labor standards requirements including, but not limited to, 40 U.S.C. 3141-3148 and 40 U.S.C. 3701-3708 (revising, codifying and enacting without substantive change the

provisions of the Davis-Bacon Act (formerly 40 U.S.C. 276a *et seq.*), the Contract Work Hours and Safety Standards Act (formerly 40 U.S.C. 327 *et seq.*) and the Copeland Anti-Kickback Act (formerly 40 U.S.C. 276c).

ARTICLE XII - RELATIONSHIP OF PARTIES

A. In the exercise of their respective rights and obligations under this Agreement the Government and the Non-Federal Sponsor each act in an independent capacity, and neither is to be considered the officer, agent, or employee of the other.

B. In the exercise of its rights and obligations under this Agreement, neither party shall provide, without the consent of the other party, any contractor with a release that waives or purports to waive any rights such other party may have to seek relief or redress against such contractor either pursuant to any cause of action that such other party may have or for violation of any law.

ARTICLE XIII - OFFICIALS NOT TO BENEFIT

No member of or delegate to the Congress, nor any resident commissioner, shall be admitted to any share or part of this Agreement, or to any benefit that may arise therefrom.

ARTICLE XIV - TERMINATION OR SUSPENSION

A. If at any time the Non-Federal Sponsor fails to fulfill its obligations under Article II.B., II.D., II.E., VI, or XVIII.C. of this Agreement, the Assistant Secretary of the Army (Civil Works) shall terminate this Agreement or suspend future performance under this Agreement unless he determines that continuation of work on the Project is in the interest of the United States or is necessary in order to satisfy agreements with any other non-Federal interests in connection with the Project.

B. If appropriations are not available in amounts sufficient to meet the Government's share of Project expenditures for the then-current or upcoming fiscal year, the Government shall so notify the Non-Federal Sponsor in writing, and 60 calendar days thereafter either party may elect without penalty to terminate this Agreement or to suspend future performance under this Agreement. In the event that either party elects to suspend future performance under this Agreement pursuant to this paragraph, such suspension shall remain in effect until such time as the Government receives sufficient appropriations or until either the Government or the Non-Federal Sponsor elects to terminate this Agreement.

C. In the event that either party elects to terminate this Agreement pursuant to this

Article or Article XV of this Agreement, both parties shall conclude their activities relating to the Project and proceed to a final accounting in accordance with Article VI.D. of this Agreement.

D. Any termination of this Agreement or suspension of future performance under this Agreement in accordance with this Article or Article XV of this Agreement shall not relieve the parties of any obligation previously incurred. Any delinquent payment owed by the Non-Federal Sponsor shall be charged interest at a rate, to be determined by the Secretary of the Treasury, equal to 150 per centum of the average bond equivalent rate of the 13-week Treasury bills auctioned immediately prior to the date on which such payment became delinquent, or auctioned immediately prior to the beginning of each additional 3-month period if the period of delinquency exceeds 3 months.

ARTICLE XV - HAZARDOUS SUBSTANCES

A. After execution of this Agreement and upon direction by the District Engineer, the Non-Federal Sponsor shall perform, or cause to be performed, any investigations for hazardous substances that the Government or the Non-Federal Sponsor determines to be necessary to identify the existence and extent of any hazardous substances regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (hereinafter "CERCLA"), 42 U.S.C. Sections 9601-9675, that may exist in, on, or under lands, easements, and rights-of-way that the Government determines, pursuant to Article III of this Agreement, to be required for the implementation, operation, and maintenance of the Project, except for any such lands that the Government determines to be subject to the navigation servitude. For lands that the Government determines to be subject to the navigation servitude, only the Government shall perform such investigations unless the District Engineer provides the Non-Federal Sponsor with prior specific written direction, in which case the Non-Federal Sponsor shall perform such investigations in accordance with such written direction. All actual costs incurred by the Non-Federal Sponsor or the Government for such investigations for hazardous substances shall be included in total project costs and cost shared in accordance with the provisions of this Agreement, subject to an audit in accordance with Article X.C. of this Agreement to determine reasonableness, allocability, and allowability of costs.

B. In the event it is discovered through any investigation for hazardous substances or other means that hazardous substances regulated under CERCLA exist in, on, or under any lands, easements, or rights-of-way, that the Government determines, pursuant to Article III of this Agreement, the Non-Federal Sponsor must provide for the implementation, operation, and maintenance of the Project, the Non-Federal Sponsor and the Government shall provide prompt written notice to each other, and the Non-Federal Sponsor shall not proceed with the acquisition of the real property interests until both parties agree that the Non-Federal Sponsor should proceed.

C. The Government and the Non-Federal Sponsor shall determine whether to initiate

implementation of the Project, or, if already in implementation, whether to continue with work on the Project, suspend future performance under this Agreement, or terminate this Agreement for the convenience of the Government, in any case where hazardous substances regulated under CERCLA are found to exist in, on, or under any lands, easements, or rights-of-way that the Government determines, pursuant to Article III of this Agreement, to be required for the implementation, operation, and maintenance of the Project. Should the Government and the Non-Federal Sponsor determine to initiate or continue with implementation after considering any liability that may arise under CERCLA, the Non-Federal Sponsor shall be responsible, as between the Government and the Non-Federal Sponsor, for the costs of clean-up and response, to include the costs of any studies and investigations necessary to determine an appropriate response to the contamination on lands, easements or rights of way that the Government determines, pursuant to Article III of this Agreement, to be required for the implementation, operation, and maintenance of the Project, except for any such lands, easements, or rights-of-way owned by the United States and administered by the Government. Such costs shall not be considered a part of total project costs. In the event the Non-Federal Sponsor fails to provide any funds necessary to pay for clean up and response costs or to otherwise discharge the Non-Federal Sponsor's responsibilities under this paragraph upon direction by the Government, the Government may, in its sole discretion, either terminate this Agreement for the convenience of the Government, suspend future performance under this Agreement, or continue work on the Project. The Government shall be responsible, as between the Government and the Non-Federal Sponsor, for the costs of clean-up and response, to include the costs of any studies and investigations necessary to determine an appropriate response to the contamination on lands, easements, or rights of way owned by the United States and administered by the Government. All costs incurred by the Government shall be included in total project costs and cost shared in accordance with the terms of this Agreement.

D. The Non-Federal Sponsor and the Government shall consult with each other in accordance with Article V of this Agreement in an effort to ensure that responsible parties bear any necessary cleanup and response costs as defined in CERCLA. Any decision made pursuant to paragraph C. of this Article shall not relieve any third party from any liability that may arise under CERCLA.

E. As between the Government and the Non-Federal Sponsor, the Non-Federal Sponsor shall be considered the operator of the Project for purposes of CERCLA liability. To the maximum extent practicable, the Non-Federal Sponsor shall operate, maintain, repair, replace, and rehabilitate the Project in a manner that will not cause liability to arise under CERCLA.

ARTICLE XVI - NOTICES

A. Any notice, request, demand, or other communication required or permitted to be

given under this Agreement shall be deemed to have been duly given if in writing and either delivered personally, or by telegram, or mailed by first-class, registered, or certified mail, as follows:

If to the Non-Federal Sponsor:

City of San Antonio
114 W. Commerce
PO Box 839966
San Antonio, TX 78283-3966

If to the Government:

USACE attn: Olmos Creek Project Manager
819 Taylor Street Rm 3A28
Fort Worth TX, 76102

B. A party may change the address to which such communications are to be directed by giving written notice to the other party in the manner provided in this Article.

C. Any notice, request, demand, or other communication made pursuant to this Article shall be deemed to have been received by the addressee at the earlier of such time as it is actually received or seven calendar days after it is mailed.

ARTICLE XVII - CONFIDENTIALITY

To the extent permitted by the laws governing each party, the parties agree to maintain the confidentiality of exchanged information when requested to do so by the providing party.

ARTICLE XVIII - HISTORIC PRESERVATION

A. The costs of identification, survey and evaluation of historic properties shall be included in total project costs and cost shared in accordance with the provisions of this Agreement.

B. Pursuant to Section 7(a) of Public Law 93-291 (16 U.S.C. Section 469c(a)), the costs of mitigation and data recovery activities associated with historic preservation shall be borne entirely by the Government and shall not be included in total project costs, up to the statutory limit of one percent of the total amount the Government is authorized to expend for the Project.

C. The Government shall not incur costs for mitigation and data recovery that exceed the statutory one percent limit specified in paragraph B. of this Article unless and until the Assistant

Secretary of the Army (Civil Works) has waived that limit in accordance with Section 208(3) of Public Law 96-515 (16 U.S.C. Section 469c-2(3)). Any costs of mitigation and data recovery that exceed the one percent limit shall be included in total project costs and shall be cost shared in accordance with the provisions of this Agreement.

ARTICLE XIX - LIMITATION ON GOVERNMENT EXPENDITURES

Notwithstanding any other provisions of this Agreement, the Government's financial participation in the Project is limited to \$5,000,000. The Non-Federal Sponsor shall be responsible for all total project costs that exceed this amount. In lieu of further construction of the Project at the Non-Federal Sponsor's expense, the Government shall, at the request of the Non-Federal Sponsor suspend construction or terminate this Agreement in accordance with Article XIV.B. of this Agreement. To provide for this eventuality, the Government may reserve a percentage of total Federal funds available for the Project and an equal percentage of the total funds contributed by the Non-Federal Sponsor in accordance with Article II.D. of this Agreement as a contingency to pay costs of termination, including any costs of contract claims and contract modifications.

ARTICLE XX - OBLIGATIONS OF FUTURE APPROPRIATIONS

A. Nothing herein shall constitute, nor be deemed to constitute, an obligation of future appropriations by the Council of the City of San Antonio.

B. The Non-Federal Sponsor intends to satisfy its obligations under this Agreement. The Non-Federal Sponsor shall include in its budget request or otherwise propose, for each fiscal period, appropriations sufficient to cover the Non-Federal Sponsor's obligations under this Agreement for each year, and will use all reasonable and lawful means to secure the appropriations for that year biennium sufficient to make the payments necessary to fulfill its obligations hereunder. The Non-Federal Sponsor reasonably believes that funds in amounts sufficient to discharge these obligations can and will lawfully be appropriated and made available for this purpose. In the event the budget or other means of appropriations does not provide funds in sufficient amounts to discharge these obligations, the Non-Federal Sponsor shall use its best efforts to satisfy any requirements for payments under this Agreement from any other source of funds legally available for this purpose. Further, if the Non-Federal Sponsor is unable to satisfy its obligations hereunder, the Government may exercise any legal rights it has to protect the Government's interests related to this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, which shall become effective upon the date it is signed by the District Engineer.

DEPARTMENT OF THE ARMY

CITY OF SAN ANTONIO

BY: _____
CHRISTOPHER W. MARTIN
Colonel, Corps of Engineers
District Engineer
Fort Worth District

BY: _____
Emil Moncivais
Planning Director
City of San Antonio

DATE: _____

DATE: _____

CERTIFICATE OF AUTHORITY

I, _____, do hereby certify that I am the principal legal officer of the City of San Antonio, that the City of San Antonio is a legally constituted public body with full authority and legal capability to perform the terms of the Agreement between the Department of the Army and the City of San Antonio in connection with the Olmos Creek Section 206 Aquatic Ecosystem Restoration Project, and to pay damages in accordance with the terms of this Agreement, if necessary, in the event of the failure to perform, and that the persons who have executed this Agreement on behalf of the City of San Antonio have acted within their statutory authority.

IN WITNESS WHEREOF, I have made and executed this certification this
_____ day of _____, 20 .

[TYPED NAME]

City Attorney

CERTIFICATION REGARDING LOBBYING

The undersigned certifies, to the best of his or her knowledge and belief that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Emil Moncivais
Planning Director

DATE: _____

CERTIFICATION OF LEGAL REVIEW

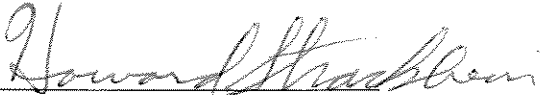
The Project Cooperation Agreement (PCA) for the Olmos Creek Section 206 Aquatic Ecosystem Restoration Project has been fully reviewed by the Office of Counsel, USAED, Fort Worth District, Fort Worth, Texas, and contains no deviations from the current Section 206 PCA model agreement.

Fort Worth District Office of Counsel

DATE:_____

CERTIFICATION OF LEGAL REVIEW

The Project Cooperation Agreement (PCA) for the Olmos Creek Section 206 Aquatic Ecosystem Restoration Project has been fully reviewed by the Office of Counsel, USAED, Fort Worth District, Fort Worth, Texas, and contains no deviations from the current Section 206 PCA model agreement.


Fort Worth District Office of Counsel

DATE: Aug. 29, 2006



United States Department of the Interior

WJ
FEL

FISH AND WILDLIFE SERVICE
10711 Burnet Road, Suite 200
Austin, Texas 78758
(512) 490-0057

FEB 3 2003

2-15-03-I-0164

William Fickel, Jr.
Chief, Environmental, Planning, and Regulatory Division
U.S. Army Corps of Engineers (USACE)
P.O. Box 17300
Fort Worth, Texas 76102-0300

Dear Mr. Fickel:

Thank you for your November 18, 2002, letter conveying the draft Preliminary Restoration Plan for Olmos Creek, San Antonio, Bexar County, Texas. We support the project because it has significant potential to benefit fish and wildlife resources in the urban setting on lands owned by the City of San Antonio. The project would be sponsored by the San Antonio River Authority on behalf of the City of San Antonio.

The project would involve enhancement of aquatic, riparian, floodplain habitat along Olmos Creek. The study area amounts to about 620 acres in the vicinity of the Olmos Creek and U.S. Highway 281. Restoration would benefit about 1.75 miles of Olmos Creek and its riparian zone. The restoration would also involve about 30 acres of floodplain in the Olmos Creek basin.

Alternatives considered include (1) no action, (2) storm water drainage restoration (converting concrete lined ditches to grass-lined swales), and (3) wet meadow creation (improving water quality for runoff and providing some flood damage reduction).


While 11 federally listed species are known to occur in Bexar County (enclosure 1), none are known from the vicinity of the study area. Critical habitat for the federally listed Bexar karst invertebrates has been proposed (enclosure 2). However, the nearest unit of proposed critical habitat is in the Alamo Heights area, about 1 kilometer east of the northern part of the study area. Dr. George Veni has developed a set of maps that classify a significant part of Bexar County as to the likelihood of the existence of karst features that may support the listed endangered invertebrates. He is in the process of revising these maps for us based on the most recent information and when we receive these updates, we will forward the data germane to the Olmos Creek study area.

We offer the following comments for your consideration as project planning proceeds. It would be helpful to list and describe issues that may affect and/or limit specific restoration actions. For example, will flood conveyance be affected by any of the treatments planned?

Are there existing and potential future wildlife interactions with nearby land use (golf courses, skeet range, sports fields, quarry, etc.), streets, and highways that can be improved by the restoration efforts? Are there opportunities to improve the water quality or stormwater runoff from U.S. Highway 281 and other roads in and near the study area? Enclosure 2 is a 2002 report from the Transportation Research Board of the National Academies, which addresses a number of issues related to wildlife and roads.

In summary, we support your plans to restore and enhance fish and wildlife habitats in the Olmos Creek area. This project has the potential to improve a variety of wildlife habitats in an urban setting. We look forward to working with you, San Antonio River Authority, and the City of San Antonio on this ecological restoration project. If you have any questions, please contact Patrick Connor at extension 227.

Sincerely,



for Robert T. Pine
Supervisor

Enclosures

cc: Robert Cook, Texas Parks and Wildlife Department, Austin, Texas

**Federally Listed as Threatened and Endangered Species of Texas
Bexar County**

October 7, 2002

This list represents species that may be found in Bexar County. Please contact the Austin ES office (U.S. Fish and Wildlife Service, 10711 Burnet Rd., Suite 200, Austin, Texas 78758; phone 512 490-0057) if additional information is needed.

DISCLAIMER

This list is based on information available to the U.S. Fish and Wildlife Service at the time of preparation (date under title). This list is subject to change, without notice, as new biological information is gathered and should not be used as the sole source for identifying species that may be impacted by a project.

Edwards aquifer species: Edwards aquifer county refers to those six counties within the Edwards Aquifer region. The Edwards aquifer underlies portions of Kinney, Uvalde, Medina, Bexar, Hays, and Comal counties, Texas.

Comal Springs riffle beetle	(E)	<i>Heterelmis comalensis</i>
Comal Springs dryopid beetle	(E)	<i>Stygoparnus comalensis</i>
Fountain darter	(E w/CH)	<i>Etheostoma fonticola</i>
Peck's cave amphipod	(E)	<i>Stygobromus pecki</i>
San Marcos gambusia	(E w/CH)	<i>Gambusia georgei</i>
Texas wild-rice	(E w/CH)	<i>Zizania texana</i>
Texas blind salamander	(E)	<i>Eurycea rathbuni</i>
San Marcos salamander	(T □w/CH)	<i>Eurycea nana</i>

Migratory species seen in Bexar and other counties: Species listed specifically in a county have confirmed sightings. If a species is not listed they may occur as migrants in those counties.

Least tern	(E ~)	<i>Sterna antillarum</i>
Whooping crane	(E w/CH)	<i>Grus americana</i>
Bald eagle	(T)	<i>Haliaeetus leucocephalus</i>
Piping plover	(T w/CH)	<i>Charadrius melodus</i>

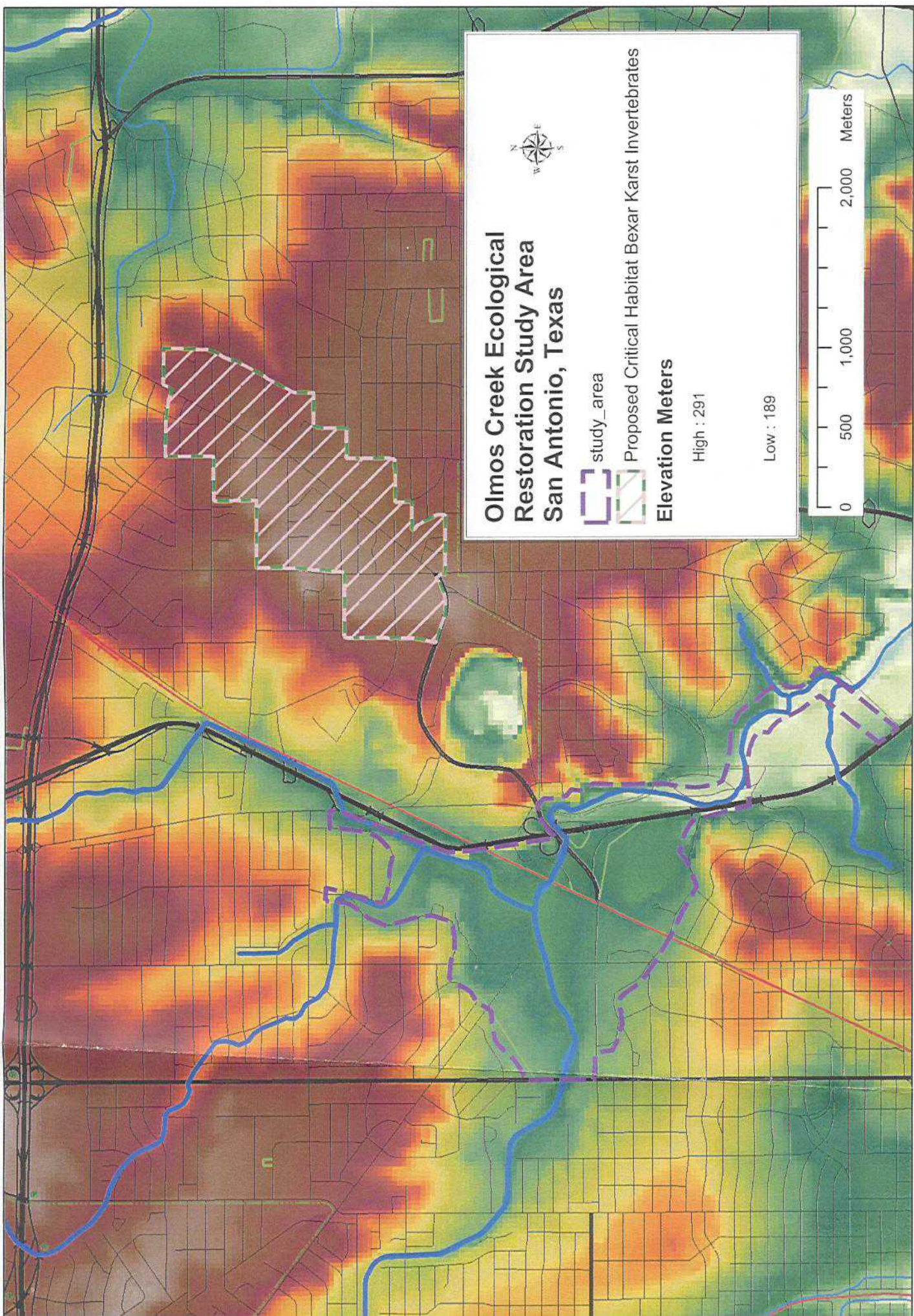
Bexar County (Edwards Aquifer County)

Black-capped vireo	(E)	<i>Vireo atricapillus</i>
Golden-cheeked warbler	(E)	<i>Dendroica chrysoparia</i>
Madla cave meshweaver	(E w/P/CH)	<i>Cicurina madla</i>
Robber Baron Cave meshweaver	(E w/P/CH)	<i>Cicurina baronia</i>
Braken Bat Cave meshweaver	(E w/P/CH)	<i>Cicurina venii</i>
Government Canyon Bat Cave meshweaver	(E w/P/CH)	<i>Cicurina vespera</i>
Government Canyon Bat Cave spider	(E w/P/CH)	<i>Neoleptoneta microps</i>
Cokendolpher cave harvestmen	(E w/P/CH)	<i>Texella cokendolpheri</i>
Ground beetle (no common name)	(E w/P/CH)	<i>Rhadine exilis</i>
Ground beetle (no common name)	(E w/P/CH)	<i>Rhadine infernalis</i>
Helotes mold beetle	(E w/P/CH)	<i>Batrisodes venyivi</i>
Mountain plover	(P/T)	<i>Charadrius montanus</i>

Legend

Statewide or areawide migrants are not included by county, except where they breed or occur in concentrations. The whooping crane is an exception; an attempt is made to include all confirmed sightings on this list.


- E = Species in danger of extinction throughout all or a significant portion of its range.
T = Species which is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.
C = Species for which the Service has on file enough substantial information to warrant listing as threatened or endangered.
CH = Critical Habitat (in Texas unless annotated †)
P/ = Proposed . . .
P/E = Species proposed to be listed as endangered.
P/T = Species proposed to be listed as threatened.
□ = with special rule
~ = protection restricted to populations found in the “interior” of the United States. In Texas, the least tern receives full protection, except within 50 miles (80 km) of the Gulf Coast.
-



Olmos Creek Ecological Restoration Study Area San Antonio, Texas



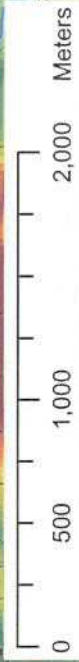
 study_area

 Proposed Critical Habitat Bexar Karst Invertebrates

Elevation Meters

High : 291

Low : 189



Planning Aid
Olmos Creek Basin Aquatic Ecosystem Restoration Project
In
San Antonio, Bexar County, Texas
By
The U.S. Fish and Wildlife Service
Austin Ecological Services Office
Austin, Texas
For
The Fort Worth District
U.S. Army Corps of Engineers
Fort Worth, Texas



DESCRIPTION OF THE STUDY AREA

Location

The study area is located in San Antonio, Bexar County, Texas and is entirely within the San Antonio River watershed (Figure 1). The study area was divided up into five areas that were different habitat types. Area One is a grassland that borders both sides of the stream. In Area Two the stream runs through a golf course. Area three runs through Olmos Basin Park. Area four is also in the park but in a less developed portion and is bounded at the lower end by Olmos Dam. Area five is a grassland located just west of Highway 281 and adjacent to a skeet shooting range.



Figure One. Study Area for Olmos Creek Aquatic Ecosystem Restoration Project in San Antonio, Bexar County, Texas.

Edwards Plateau

The Edwards Plateau Region comprises an area of West Central Texas commonly known as the hill country. It is bounded on the east and south by the Balcones Fault. To the north it extends to the Western Cross Timbers of the Oak Woods and Prairies Region and grades into the Plains regions. The Llano Uplift Region also forms part of the northern border. The Pecos River and eastern edge of the Stockton Plateau define the western extent of the Edwards Plateau Region.

Elevations range from slightly less than 100 feet, to over 3,000 feet (30 to 90 meters). Several river systems dissect the surface, creating a rough and well-drained landscape. Average annual rainfall increases from west to east, ranging from 15 to 33 inches (38 to 84 centimeters). Seasonal rainfall patterns peak in May/June and in September. Soils of the Edwards Plateau are usually shallow with a variety of surface textures. They are underlain by limestone. Man-made lakes, ranches, and farms are scattered throughout the region.

The original vegetation of the Edwards Plateau ecoregion was a combination of dense woodlands and grasslands or open savannah-type plains. The mosaic of habitat within this ecoregion was influenced greatly by natural and human caused fires. Deciduous forest is the most characteristic plant association of the area. Ashe juniper (*Juniperus ashei*), Texas oak (*Quercus buckleyi*), and live oak (*Quercus fusiformis*) are dominant in the more dissected southern and eastern canyonlands of the region. Mesquite (*Prosopis glandulosa*) occurs throughout the Edwards Plateau, and along with live oak, it dominates the woody vegetation in the west. Some savanna type vegetation also occurs and was formerly more widespread. Live oak-mesquite savanna topography is flat to rolling with oak and mesquite woods on grassland. Tall grasses such as various bluestems (*Andropogon* spp.), indiangrass (*Sorghastrum nutans*), and switchgrass (*Panicum virgatum*) are still common along rocky outcrops and areas having good soil moisture. Mid-grasses and short-grasses such as sideoats grama (*Bouteloua curtipendula*), buffalograss (*Buchloe dactyloides*), and Texas grama (*Bouteloua rigidiseta*) dominate the shallow xeric sites. The creek banks are wooded with a variety of trees, some of them ranging 20-50 inches (51 to 127 centimeters) in diameter at breast height. Species common to this area include cottonwood (*Populus deltoides*), pecan (*Carya illinoensis*), American elm (*Ulmus americana*), hackberry (*Celtis laevigata*), various oak (*Quercus* spp.), mesquite, ashe juniper, bald cypress (*Taxodium distichum*), and willow (*Salix* spp.).

FISH AND WILDLIFE RESOURCES

Habitat Cover Types

Riparian Woodlands - This cover type is predominately composed of mature pecan, oaks, and elms within the riparian corridors, or areas that are periodically flooded. These bottomland ecosystems have been created by the interaction of streams, floodplains, and the adjacent terrestrial habitat. These hardwood forests, particularly old growth hardwoods (greater than 100 years old), contribute to the biodiversity and provide important food and shelter for wildlife. Periodic flooding enhances the diversity of habitat types within these areas. The disturbance of the bottomland forest by flooding is a natural and important part of the proper functioning of these areas. Bottomlands help to contain floodwaters and lessen the impact of flooding when

rivers overflow. In addition, these bottomland forests help maintain water quality by trapping sediments, wastes, and pollutants from stormwater runoff.

Trees found in the riparian areas include pecan, sycamore (*Platanus occidentalis*), elm, cottonwood, and hackberry. According to reports by the Texas Parks and Wildlife Department (Fentress, 1986), at least 189 species of trees and shrubs, 42 woody vines, 75 grasses and 802 herbaceous plants are known to occur in the bottomland hardwoods ecosystems in Texas. Even though central Texas bottomland hardwood ecosystems are not quite as diverse as the east Texas woodlands described by Fentress (1986), they are complex and dynamic habitats with large diverse communities. These plant communities provide habitat for a diversity of animal species.

Streams, creeks, rivers, and other bodies of water of bottomland hardwoods in Texas also support at least 116 species of fish, 31 species of amphibians, 54 species of reptiles, 273 species of birds and 45 species of mammals (Fentress, 1986). Over 50 percent of all the neotropical songbirds are associated with bottomland hardwood forests (Fentress, 1986). The Olmos Creek basin bottomlands support a large diversity of insects, fish, amphibians, reptiles, birds, and mammals. Signs of armadillos (*Dasypus novemcinctus*), raccoons (*Procyon lotor*), and opossums (*Didelphis virginiana*) were fairly numerous throughout the study area. Leopard frogs (*Rana pipiens*) and cricket frogs (*Acris crepitans*) were abundant, as were snakes, butterflies, bees, and other flying insects. These areas provide some habitat for white-tail deer (*Odocoileus virginianus*). Bird species sighted were typical of bottomland riparian areas

Overall, the riparian habitat along the study area is highly fragmented and impacted by past management along the streambanks. Dense pockets of properly functioning riparian habitat do exist within the study area in the lower reaches of the stream. Within the remainder of the study area, it appears that subsequent management has greatly impacted the wildlife habitat within the riparian corridors.

Grasslands - Two grassland areas are located within the study area. In most cases the grasslands are the result of past management activity (i.e. brush clearing). Much of the existing grasslands are within flood prone areas and are comprised of mainly forbs with scattered grasses, trees, and shrubs. The plants are a mixture of native and introduced species.

Wildlife Resources

The project area is used by both resident and migratory species that are somewhat tolerant of human activity. Migratory waterfowl and shorebirds, and resident wood ducks (*Aix sponsa*), can be seen along the stream. A variety of migratory and resident passerine, owl, and hawk species use the woodlands as well. Some common resident birds that may be observed in the study area are white-crowned sparrows (*Zonotrichia leucophrys*), northern cardinals (*Cardinalis cardinalis*), blue jays (*Cyanocitta cristata*), common grackles (*Quiscalus quiscula*), common crows (*Corvus brachyrhynchos*), kingfishers (*Ceryle alcyon*), and red-tailed hawks (*Buteo jamaicensis*). Mammal species that may utilize the riparian woodland in the study area include raccoons, armadillos, skunks (*Mephitis mephitis*), opossums, eastern cottontail (*Sylvilagus floridanus*), fox squirrels (*Sciurus niger*), and other small rodents.

Aquatic Resources

Common fish species that can be found in the stream are bass (*Micropterus spp.*), bullhead (*Ictalurus spp.*), Rio Grande cichlid (*Cichlasoma cyanoguttata*), green sunfish (*Lepomis cyanellus*), and various minnows. Fish population information (Table 1) was derived from field visits and a survey of fish conducted by the San Antonio River Authority in a section of the San Antonio River located downstream of Olmos Creek (San Antonio River Authority, 1996). The fish population in Olmos Creek is typical of central Texas streams. Several introduced species were noted in relatively high abundance.

The stream throughout most of the study area is intermittent. From about the stream crossing of McCullough Avenue downstream to just below the crossing of Jones-Maltsberger Road, appears to have permanent water. This stream section appears to have very low flow in the summer months and water availability is probably greatly enhanced by watering on the golf course. Several species of frogs and turtles may also be found in the project area. Species sighted included cricket frogs (*Acris crepitans*), leopard frogs (*Rana pipiens*), snapping turtles (*Chelydra serpentina*), soft-shelled turtles (*Apalone spp.*), and red eared sliders (*Trachemys scripta*). In addition, many bird species were noted using the aquatic habitat, including green herons (*Butorides virescens*), yellow-crowned night herons (*Nyctanassa violacea*), cattle egrets (*Bubulcus ibis*), great egrets (*Ardea alba*), little blue herons (*Egretta caerulea*), and great blue herons (*Ardea herodias*).

Because stream temperature is often a factor limiting aquatic productivity in Central Texas streams, an analysis of stream temperature was done for the portion of the study with permanent water (Areas One, Two and Three). Temperature has a marked effect on the aquatic productivity and species found in streams. In addition, an analysis of stream shading was done by collecting information on streamside tree canopy cover throughout the study area.

Stream temperatures were measured from June 25 to September 4, 2003 (Figure 2). During this period, the highest temperature readings were from early August. Spring flow was probably at the lowest point during the year and ambient air temperature (day and night) was probably the warmest. The temperatures appear to be greatly influenced by storm events. These summer storms increase flow and moderate temperature differences among the areas.

In general, the temperature was coolest in Area One where some spring flow probably enters the stream. The water appears to heat up through the golf course and again as it passes through the concrete lined channel at the top of Area Three. Temperatures appear to moderate in the shaded stretch of stream below the crossing of Jones-Maltsberger Road. However, this moderation is slight and appears to be influenced by stream flow.

Table 1. - List of fishes possibly occurring in Olmos Creek. This list was derived from an area known as the Museum Reach of the San Antonio River (SARA, 1996). This area is about one mile downstream of the Olmos Creek study area.

Species	Common Name	Species	Common Name
<i>Atractosteus spatula</i>	Alligator Gar	<i>Poecilia latipinna</i>	Sailfin Molly*
<i>Lepisosteus osseus</i>	Longnose Gar	<i>Micropterus salmoides</i>	Largemouth Bass
<i>Lepisosteus oculatus</i>	Spotted Gar	<i>Moxostoma congestum</i>	Gray Redhorse
<i>Dorosoma cepedianum</i>	Gizzard Shad	<i>Lepomis gulosus</i>	Warmouth
<i>Astyanax mexicanus</i>	Mexican tetra*	<i>Lepomis cyanellus</i>	Green Sunfish
<i>Notropis lutrensis</i>	Red Shiner	<i>Lepomis microlophus</i>	Redear Sunfish
<i>Notropis volucellus</i>	Mimic Shiner	<i>Lepomis macrochirus</i>	Bluegill
<i>Notropis venustus</i>	Blacktail Shiner	<i>Lepomis auritus</i>	Redbreast Sunfish
<i>Dionda episcopa</i>	Roundnose Minnow	<i>Lepomis megalotus</i>	Longear Sunfish
<i>Pimephales vigilax</i>	Bullhead Minnow	<i>Lepomis punctatus</i>	Spotted Sunfish
<i>Pimephales promelas</i>	Fathead Minnow	<i>Cichlasoma cyanoguttatum</i>	Rio Grande Cichlid*
<i>Ictalurus punctatus</i>	Channel Catfish	<i>Tilapia aurea</i>	Blue Tilapia*
<i>Ictalurus furcatus</i>	Blue Catfish	<i>Tilapia mossambica</i>	Mozambique Tilapia*
<i>Ictalurus natalis</i>	Yellow Bullhead	<i>Cyprinus carpio</i>	Common Carp*
<i>Pylodictis olivaris</i>	Flathead Catfish	<i>Camptostoma anomalum</i>	Central Stoneroller
<i>Noturus gyrinus</i>	Tadpole Madtom	<i>Hypostomus plecostomus</i>	Suckermouth Catfish*
<i>Gambusia affinis</i>	Mosquitofish	<i>Xiphophorus helleri</i>	Green Swordtail*

* Nonnative or introduced species.

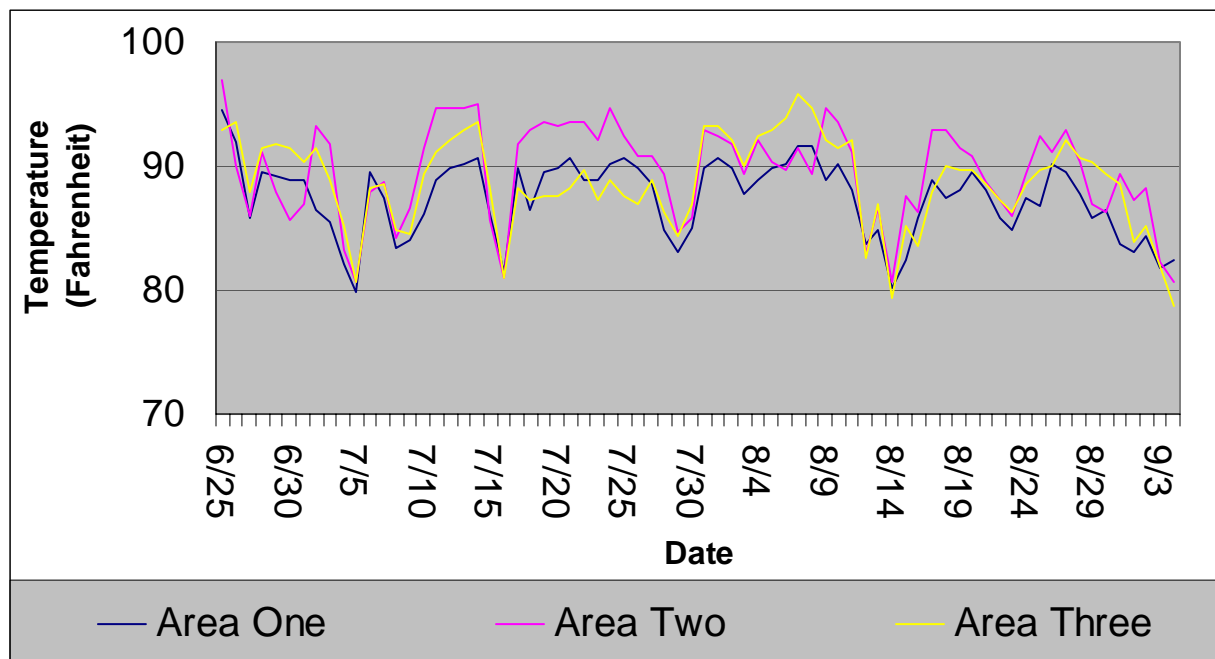


Figure Two. Olmos Creek Maximum Daily Temperatures June 25 to September 4, 2003.

Habitat Evaluation Procedures (HEP)

Wildlife values were analyzed using HEP (U.S. Fish and Wildlife Service, 1980) to describe and measure key habitats in the project area. The HEP requires the use of Habitat Suitability Index (HSI) models developed for indicator species that best represent groups of species that use the habitats in the project area. The eight wildlife species utilized for the habitat evaluations are indicative of species found within the Olmos Creek study area and are listed below in Table 2.

Riparian Woodlands	Grasslands
Raccoon (<i>Procyon lotor</i>)	Red-tailed Hawk (<i>Buteo jamaicensis</i>)
Barred Owl (<i>Strix varia</i>)	Scissor-tailed Flycatcher (<i>Muscivora forficata</i>)
Fox Squirrel (<i>Sciurus niger</i>)	Eastern Meadowlark (<i>Sturnella magna</i>)
Green Heron (<i>Butorides virescens</i>)	Eastern Cottontail (<i>Sylvilagus floridanus</i>)

Using these models, baseline habitat conditions are expressed as a numeric function (HSI value) ranging from 0.0 to 1.0, where 0.0 represents no suitable habitat for an indicator species and 1.0 represents optimum conditions for the species. Habitat units (HU) are calculated by multiplying the HSI by the amount of acres of the habitat type available within each restoration area. Acreages were derived from floodplain maps provided by the Corps of Engineers. The study area was divided into several different areas based on the habitat type and land use. These areas

will be described below based on the HEP/HSI results. Site specific HEP/HSI data is included in Appendix A.

Riparian Woodlands - Overview

Riparian woodland habitat was assessed at seventeen sites along Olmos Creek (Sites 1-17). Photos of the sites can be found in Appendix B. Plant and animal species found in these sites are listed in Appendix C. The overall HSI value for the riparian habitat in the Olmos Creek study area is 0.60 with 37 Habitat Units (Table 3) providing fair habitat.

Table 3. Riparian Woodland Habitat Scores for Olmos Creek Aquatic Ecosystem Restoration Project.					
Habitat	Species Habitat Suitability Index Habitat Units				Average
	Riparian Woodlands	Raccoon 0.62 38	Barred Owl 0.47 29	Fox Squirrel 0.37 23	
Grasslands	Red-tailed Hawk 0.91 36	Scissor-tailed Flycatcher 0.98 38	Meadowlark 0.51 20	Eastern Cottontail 0.73 28	0.78 30
Grasslands Golf Course	Red-tailed Hawk 0.57 5	Scissor-tailed Flycatcher 0.80 6	Meadowlark 0.43 3	Eastern Cottontail 0.33 3	0.53 4

Raccoons require large diameter trees, which were found throughout the lower portion of the study area. However, Area One and Area Two were lacking in large diameter streamside trees. These areas greatly influenced the overall habitat value (0.62) for raccoons. Similarly, barred owl habitat (0.47) was reduced due to the lack of large diameter trees in Areas One and Two. Fox squirrel habitat (0.37) rated low for winter food production, while cover/reproduction values appeared to be fairly high. Mast producing trees greater than or equal to 6 inches diameter at breast height (dbh) were rare throughout many of the riparian areas and thus the food value for fox squirrels rated poorly. In addition, green heron habitat suitability (0.93) was very good due to abundant streamside cover and good food production in the stream.

Grasslands – Overview

The project study area contains two grassland areas. Habitat suitability data is reported in Table 3. These areas provide good habitat for most grassland species. The high quality food production capacity of these grasslands and the good feeding conditions provide excellent habitat for both the red-tailed hawk (0.91) and scissor-tailed flycatcher (0.98). Both areas tend to be dominated by forbs and lack a large component of native grass species. This lack of native grass species limits the quality of the habitat for seed eating animals like the meadowlark (0.51). The general lack of shrub habitat in these areas limits the habitat suitability for eastern cottontails (0.73).

Area Specific Habitat Analysis

The study area was divided into five project areas (Figure 1.) based on habitat type and land use. Below is an analysis of the fish and wildlife habitat conditions for each area.

Area One – Riparian Woodlands

Area One is located between San Pedro Avenue and McCullough Avenue and is predominantly a forb-dominated grassland. Some riparian habitat is present along the stream but this area has been cleared of most woody vegetation in the past. This area is subject to flooding and is periodically mowed. There are a few remnant clumps of live oak, cedar elm (*Ulmus crassifolia*), and mesquite trees and a few scattered areas along the creek that provide some tree canopy cover. The stream lacks shade and riparian woodland habitat. The HEP/HSI information is summarized in Table 4.

Habitat	Species Habitat Suitability Index Habitat Units				Average
	Raccoon	Barred Owl	Fox Squirrel	Green Heron	
Riparian Woodlands	0.39	0.11	0.08	0.92	0.38
	7	2	2	17	
Grasslands	Red-tailed Hawk	Scissor-tailed Flycatcher	Meadowlark	Eastern Cottontail	0.83
	0.91	0.98	0.58	0.85	
	17	19	11	16	16

The riparian woodland scores for area one were very low (0.38). This portion of the stream habitat lacked large diameter trees and had a very poor stream canopy cover that are both important habitat components for raccoon (0.39), barred owl (0.11), and fox squirrel (0.08). The

green heron (0.92) habitat was good because the stream was productive and the streamside vegetation provided excellent hunting cover.

Area One – Grasslands

Grassland habitat was assessed at five sites in Area One (13-17) and the habitat was found to be in very good condition. The overall HSI value was 0.83, with 16 habitat units (Table 4). Photos of each site can be found in Appendix B. Plant and animal species found in these sites are listed in Appendix C.

The habitat was very good for the red-tailed hawk (0.91) due to very good habitat for small mammal production providing ideal hunting habitat. Scissor-tailed flycatcher habitat rated excellent (0.98) with good food production and perching habitat. In addition, food production and hiding cover in the streamside areas provided very good habitat for cottontail rabbits (0.85). Meadowlark habitat (0.58) was rated relatively low because of the low percentage of grass species found in Area One. The dominant vegetation in this area was forbs, and the lack of grass species limits the food availability for meadowlarks, which are seed eating birds.

Area One – Aquatic Habitat

The aquatic habitat within Area One is not in optimal condition. It appears that springs may be present in the downstream portion of this area. The stream lacks shade and riparian habitat in the streamside zone. An analysis of stream shade was conducted along this stretch of Olmos Creek (Figure 3). Overall, the canopy is very poor, with little to no shade along most of the stream. One or two areas along this section have some dense pockets of stream shade. The lack of stream shade probably has a great impact on stream water temperature.

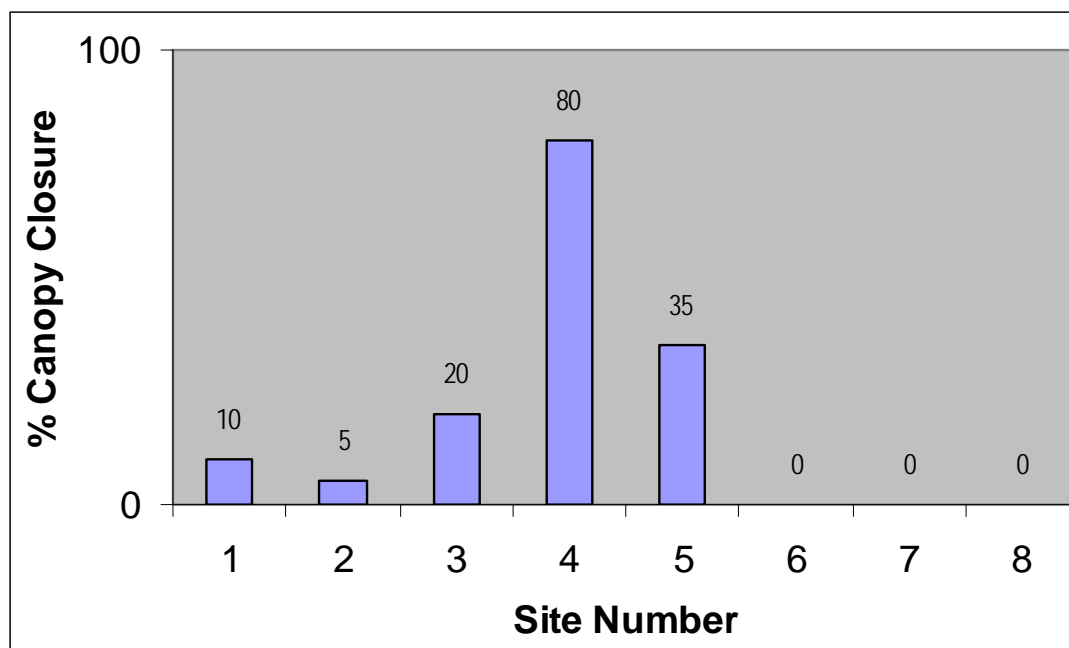


Figure 3. Olmos Creek canopy closure in Area One of the Olmos Creek Restoration Project.

The temperature was measured continuously from June 25 to September 4, 2003 (Figure 4). Water temperature was mostly between 80°F (26°C) and 90°F (32°C) but spiked to 95°F (35°C) in late June. The temperatures above 80°F (26°C) and 90°F (32°C) indicate low water flow and high solar input. Temperature is also greatly influenced by storms that drove stream temperatures below 80°F (26°C). The lack of stream shade and the high summer water temperatures probably limit the aquatic productivity of this stream section.

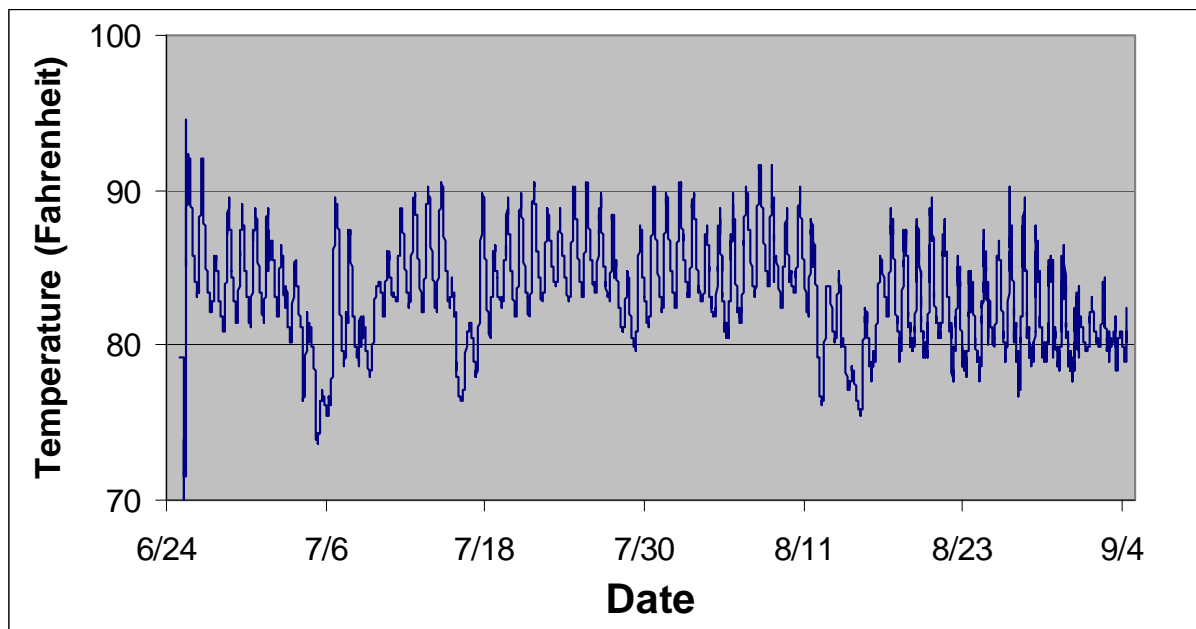


Figure 4. Olmos Creek water temperature in Area One of the Olmos Creek Restoration Project.

Area Two – Grasslands (Golf Course)

Area Two is located between McCullough Avenue and the stream crossing of Jones-Maltsberger Road. This area is predominantly a golf course. Some riparian habitat is present along the stream, but this area has been cleared of most woody vegetation. This area is subject to flooding and is regularly mowed. There are a few remnant clumps of pecan, cedar elm, and mesquite trees and a few scattered areas along the creek that provide some tree canopy cover. In general, this stream section lacks shade and riparian woodland habitat. The HEP/HSI information is summarized in Table 5.

Grassland habitat was assessed at four sites in Area Two (19-22) and the habitat was found to be in relatively poor condition. The overall HSI value was 0.53, with 4 habitat units (Table 5). Photos of each site can be found in Appendix B. Plant and animal species found at these sites are listed in Appendix C.

Table 5. Grassland Habitat Scores for Area Two, Olmos Creek Aquatic Ecosystem Restoration Project.					
Habitat	Species Habitat Suitability Index Habitat Units				Average
	Red-tailed Hawk	Scissor- tailed Flycatcher	Meadowlark	Eastern Cottontail	
Grasslands (Golf Course)	0.57	0.80	0.43	0.33	0.53
	5	6	3	3	

The grassland habitat scores for the golf course were poor. The golf course was not good habitat for red-tailed hawk (0.57) because the managed turf provided very poor habitat for small mammal production. The lack of hiding cover in the streamside areas also provided poor habitat for cottontail rabbits (0.33). However, scissor-tailed flycatcher habitat rated fairly high (0.80) with good food production and fair perching habitat. Meadowlark habitat (0.48) was rated relatively low because of the low percentage of grass species that reach maturity in the managed turf areas of the golf course. The dominant vegetation in this area was introduced grass species that were mowed regularly. There was little to no seed production, and that limits the food availability for meadowlarks.

Area Two – Aquatic Habitat

The aquatic habitat within Area Two is not in optimal condition. While this area may have small springs and seeps along the stream, there is little to no streamflow, except during rain events. The stream lacks shade and riparian habitat in the streamside zone. An analysis of stream shade was conducted along this stretch of Olmos Creek (Figure 5). Overall the canopy is very poor, with little to no shade along most of the stream. One or two areas along this section have some pockets of stream shade. The lack of stream shade probably has a great impact on stream water temperature.

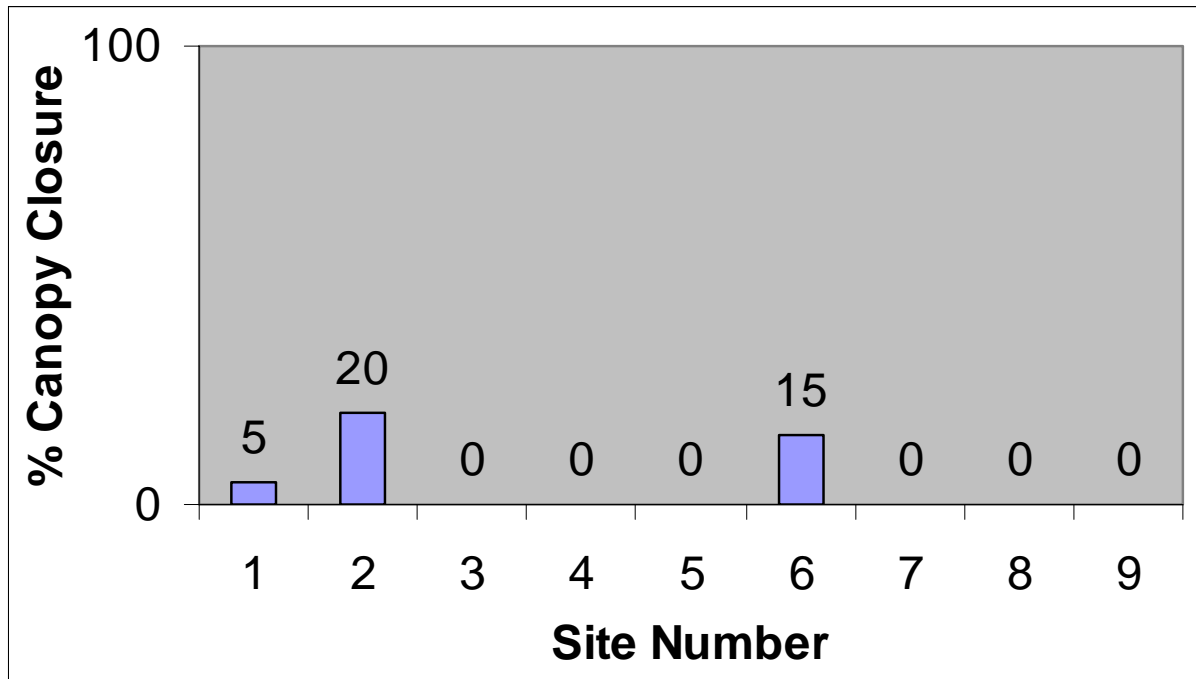


Figure 5. Olmos Creek canopy closure in Area Two of the Olmos Creek Restoration Project.

The temperature was measured continuously from June 25 to September 4, 2003 (Figure 6). Water temperature was mostly between 80°F (26°C) and 90°F (32°C) but spiked to 95°F (35°C) in late June. The temperatures above 80°F (26°C) and 90°F (32°C) indicated low water flow and high solar input. Temperature is also greatly influenced by storms that drove stream temperatures below 80°F (26°C). The lack of stream shade and the high summer water temperatures probably limit the aquatic productivity of this stream section.

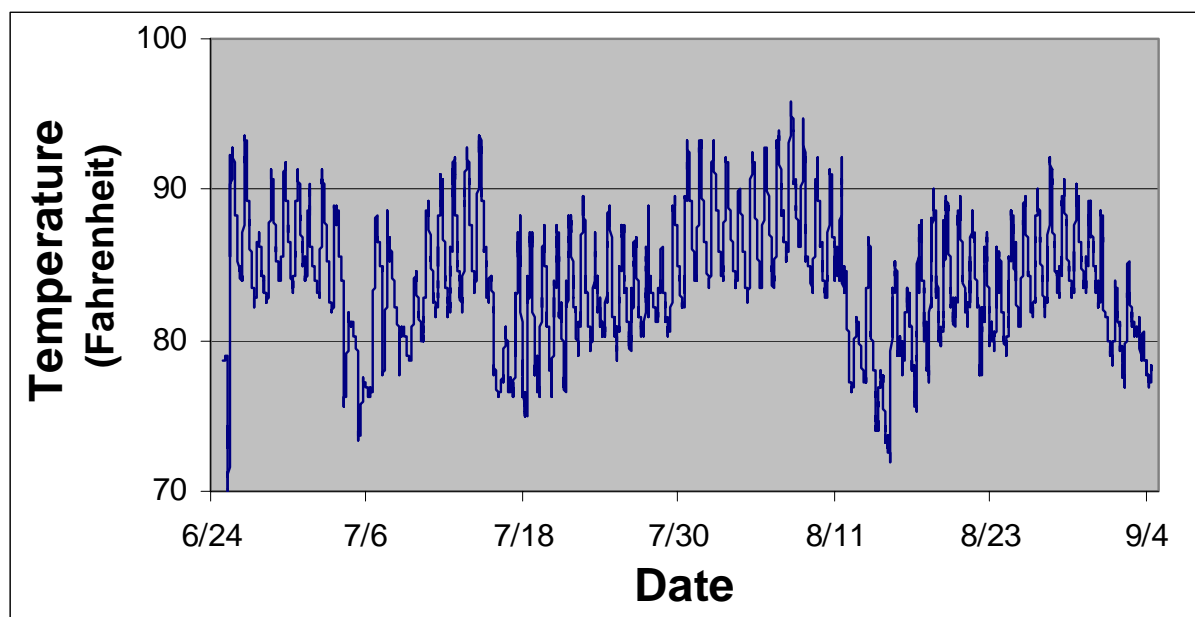


Figure 6. Olmos Creek water temperature in Area Two of the Olmos Creek restoration project.

At the bottom of Area Two there is a long, wide concrete channel that the Texas Department of Transportation installed to route the stream around Highway 281. This channel is a barrier to upstream movement of aquatic species except at higher flows. In addition, the wide shallow nature of this ditch causes the water to be exposed to high solar radiation that warms the stream temperature. Stream temperature probably limits aquatic productivity in this central Texas stream. A temperature monitoring device was placed below this concrete ditch, but unfortunately the probe was damaged. The seal broke on the probe and water leaked inside the device and all data was lost. Without the data we can say no more than the concrete channel probably has a great impact on temperature. It certainly lacks the stream depth at base flow for fish passage. A pilot channel to increase depth and reduce solar radiation would benefit the aquatic ecosystem.

Area Three – Riparian Woodlands

Area Three is located between the crossing of Jones-Maltsberger Road and the second stream crossing of Devine Road and runs through Olmos Basin Park. This area is predominantly an improved park with picnic tables and mowed turf along the east side of the stream course. The west bank of the stream is a heavily wooded bottomland hardwood forest. Riparian habitat is present along most of the stream but the area within the park has been altered and most of the woody understory vegetation has been removed. This area is subject to flooding and is regularly mowed. There is an abundance of pecan and hackberry trees along the creek that provide good tree canopy cover within the park area. However, the bottomland hardwood forest between the first crossing of Devine Road and Jones-Maltsberger Road lacks the hard mast producing trees found in the park. The HEP/HSI information is summarized in Table 6.

Table 6. Riparian Woodlands Habitat Scores for Area Three, Olmos Creek Aquatic Ecosystem Restoration Project.					
Habitat	Species Habitat Suitability Index Habitat Units				Average
	Raccoon	Barred Owl	Fox Squirrel	Green Heron	
Grasslands (Golf Course)	0.76	0.85	0.73	0.93	0.82
	8	9	8	10	9

Riparian woodland habitat was assessed at five sites (1-5) in Area Three and the habitat was found to be in fair condition. The overall HSI value was 0.82 with 9 habitat units (Table 6). Photos of each site can be found in Appendix B. Plant and animal species found at these sites are listed in Appendix C.

The riparian woodland habitat scores for the park were fair. The habitat was fair for raccoons (0.76) with good large trees for overstory cover but a lack of good denning sites. Barred owl habitat rated well (0.85) because the large pecan trees provide good nesting and cover. Fox squirrel habitat was fair with adequate food and cover. One site in the park lacked pecan trees for hard mast and that reduced the average habitat suitability. Green heron habitat along the stream rated excellent (0.93) with good food productivity, stream depth, and hiding cover.

Area Three – Aquatic Habitat

The aquatic habitat within Area Three is in fairly good condition. While this area goes dry during the summer, it provides an important link between downstream pools and upstream permanent water. The creek has good streamside shade and fair riparian habitat. An analysis of stream shade was conducted along this stretch of Olmos Creek (Figure 7). Overall, the canopy is very good, with adequate shade along most of the stream.

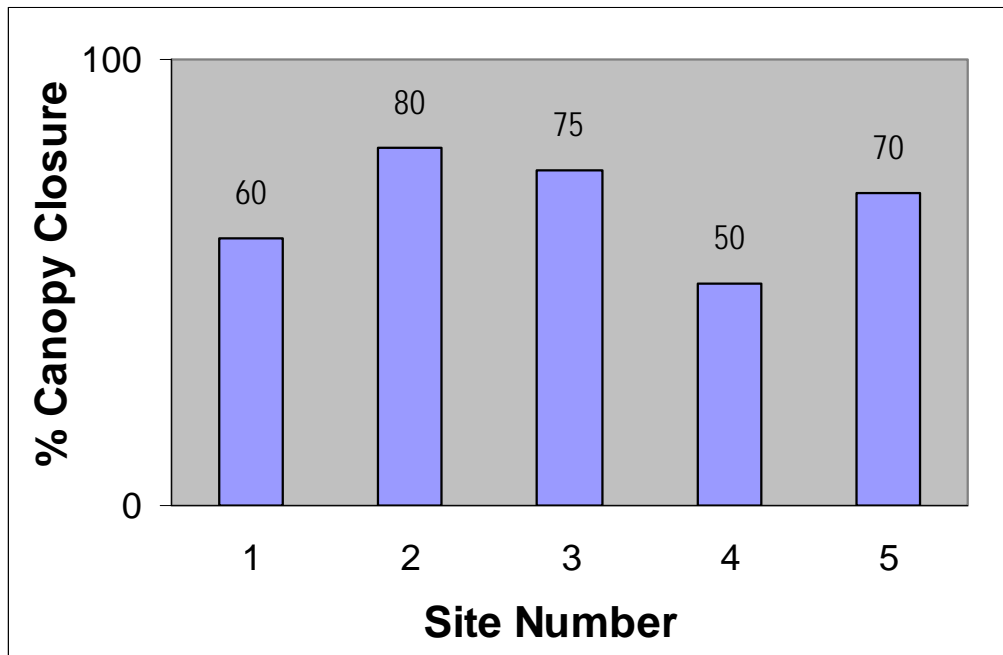


Figure 7. Olmos Creek canopy closure in Area Three of the Olmos Creek Restoration Project.

The temperature was measured continuously from June 25 to September 4, 2003 (Figure 8). Water temperature was mostly between 80°F (26°C) and 90°F (32°C). The temperatures above 80°F (26°C) and 90°F (32°C) indicated low water flow. Temperature is also greatly influenced by storms that drove stream temperatures below 80°F (26°C). The high summer water temperatures probably limit the aquatic productivity of this stream section.

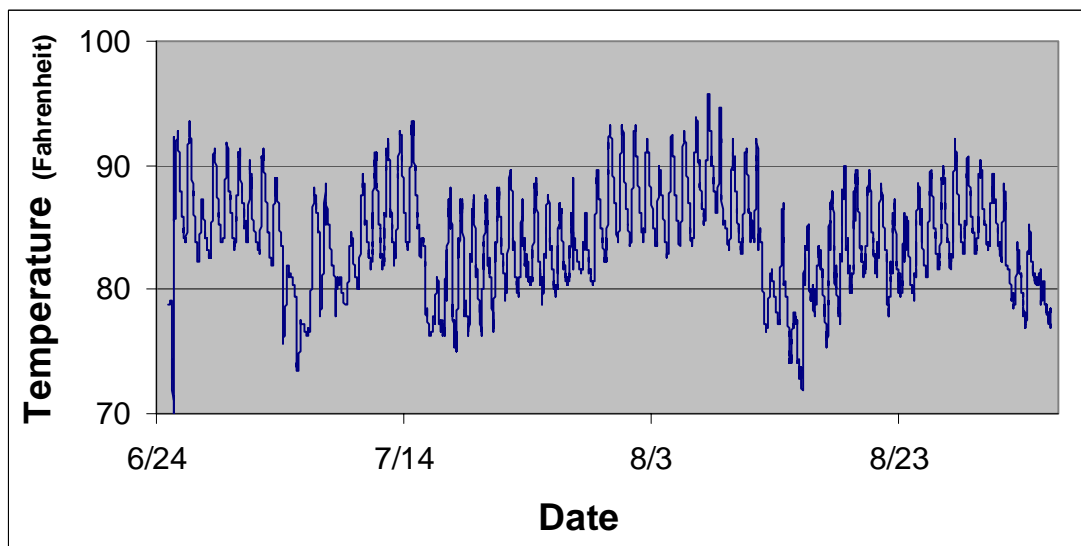


Figure 8. Olmos Creek water temperature in Area Three of the Olmos Creek Restoration Project.

Area Three was identified as a potential area for stream restoration in the earlier phases of restoration planning. Therefore, an extensive aquatic habitat survey was conducted for a portion of this area. Stream habitat attributes were measured in the park area between the first and second crossings of Devine Road. The stream segment was stratified into different habitat types (pools and riffles), and specific attributes were collected in each identified habitat unit. Attributes included stream width, percent of substrate embedded in silt (embeddedness), dominant substrate type (silt, gravel, cobble, or boulder), and aquatic habitat (cover).

Successful hydrological and ecological management of urbanized headwater drainages, such as the Olmos Creek requires a clear understanding of flow and sediment dynamics. The pool-riffle unit is a fundamental hydrological control for bed scour, sediment transfer, bank erosion and channel instability. In addition, biological niches, which are critical in sustaining aquatic habitats, are created by a diversity of these basic habitat types. Both resting areas (pools) and food production areas (riffles) are important components of a healthy aquatic ecosystem.

About 2,500 feet (763 meters) of stream was sampled and the ratio of pools to riffles was about 4:1. The pool/riffle ratio in this stream section shows that there is an abundance of pool habitat. Generally, a lower pool/riffle ratio with closer to a 1:1 relationship is considered a better balance of resting habitat and food production areas. The over abundance of pool habitat is related to the instream structures and sewer lines that cross the creek and create pools. Reduction in the number of pools through this stream section and an increase in riffle habitat would be beneficial to the aquatic ecosystem.

Stream width can also be used as an indication of the habitat condition within the stream (Figure 9). Olmos Creek, through this stream section, has been widened by past management activities. Based on our observations and measurements, this stream section should have an average stream width between 10 and 15 feet (3 and 5 meters). The riffle habitat was within this range having an average stream width of 11 feet (3 meters), with a minimum width of 4 feet (1 meter) and a maximum width of 20 feet (6 meters). However, the pool habitat was considerably wider with an average width of 20 feet (6 meters), a minimum width of 10 feet and a maximum width of 62 feet (19 meters). For the most part, each pool width measurement that exceeded about 15 feet (5 meters) was in response to a man-made structure. Two bridges, three utility (sewer) lines, one abandoned utility crossing, and one abandoned concrete crossing directly impact stream width through the park section of Olmos Creek. Reduction of these impacts would benefit the aquatic habitat by reducing stream width and increasing stream depth. This change in stream channel dimensions would serve to improve habitat conditions by moderating stream temperature and reducing the amount of pool habitat within the stream. In addition, riffles, the food production habitat, would probably increase.

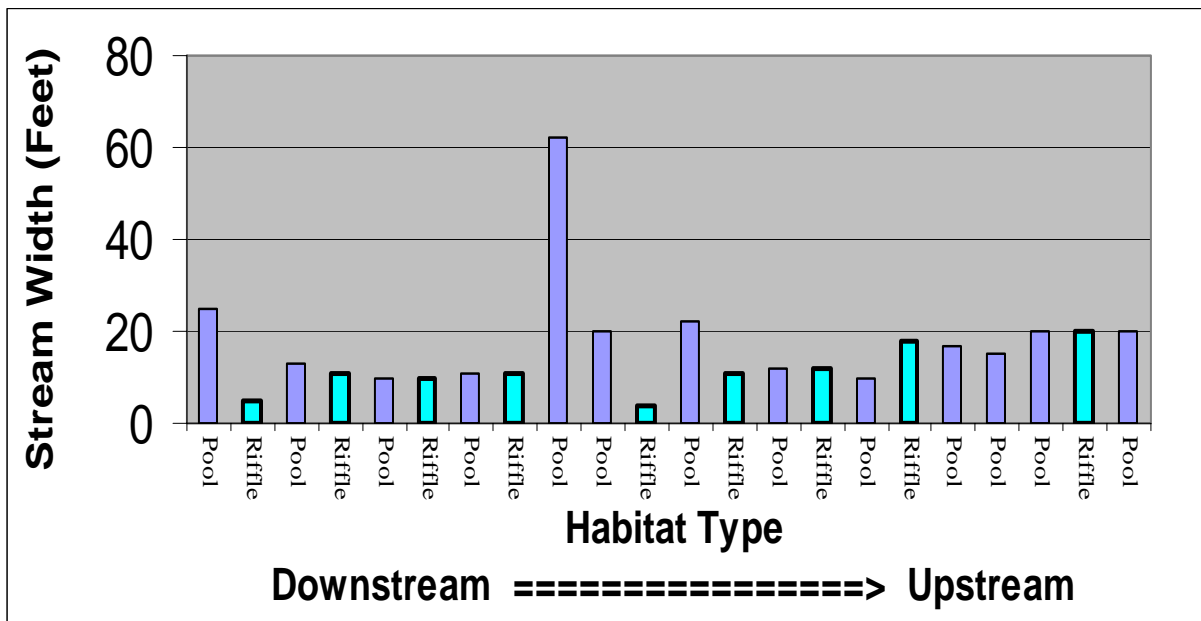


Figure 9. Stream width of each habitat unit in Olmos Creek within Area Three. Area Three is between the first and second stream crossing of Olmos Creek and Devine road in Olmos Basin.

The level of embeddedness (pools = 30 and riffles = 6) is fairly low and indicates a light silt load (Figure 10). The stream receives a large amount of scouring streamflow during most storm events. While individual sources of streambank erosion were noted, overall stream sedimentation does not appear to be a major issue in Olmos Creek.

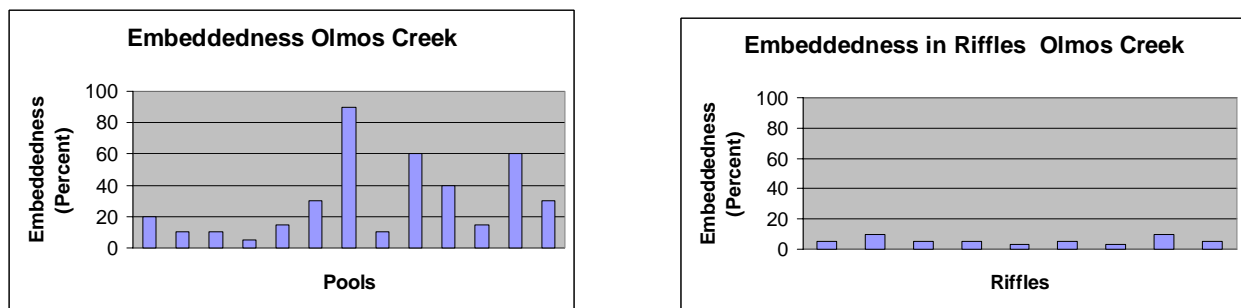


Figure 10. Embeddedness or the percent to which the substrate is embedded in fine silt, for Olmos Creek within Area Three. Area Three is between the first and second stream crossing of Olmos Creek and Devine road in Olmos Basin.

Aquatic habitat cover scores (pools = 6 and riffles = 3) were fair to good (Figure 11). The stream could benefit from the introduction of boulders to provide additional cover for aquatic species. Most benefits would be gained from introducing these habitat elements in the pools. With the scouring flows that the stream receives, boulder introduction may be the only feasible way to introduce cover that will stay in place.

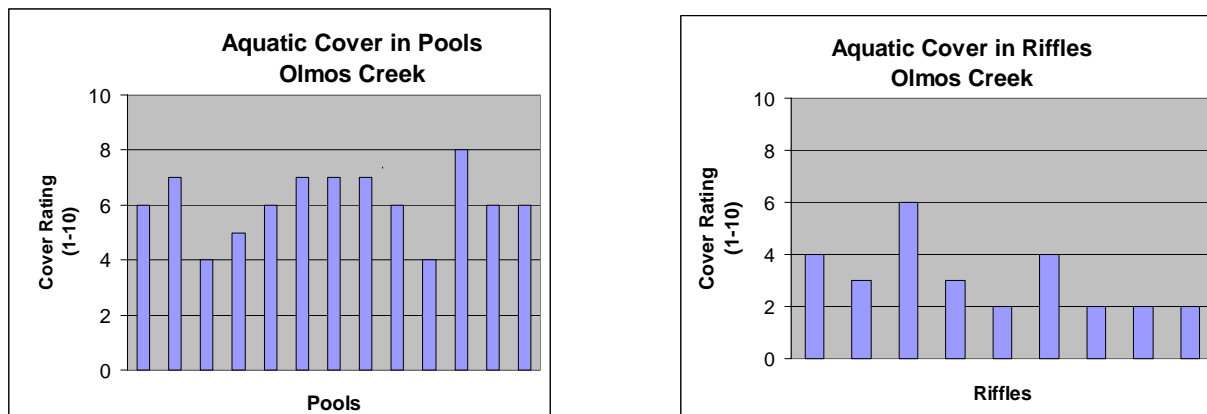


Figure 11. Aquatic cover, or a rating of the hiding and resting cover, for Olmos Creek within Area Three. Area Three is between the first and second stream crossing of Olmos Creek and Devine road in Olmos Basin.

The dominant substrate types in pools were gravel (30 percent), cobble (40 percent), and silt (30 percent). The pools would benefit from more large rocks to provide resting and feeding cover. The dominant substrate type in riffles was cobble (89 percent), and gravel (11 percent). The riffles within this section of stream appear to be in good condition. Decreasing the amount of pool habitat by removing the crossings should increase the amount of riffle habitat. As noted above, increasing the amount of the riffle habitat would improve aquatic ecosystem health

Area Four – Riparian Woodlands

Area Four is located between the second crossing of Devine Road and Olmos Dam (Figure 1). This area is a thickly vegetated riparian bottomland hardwood and is subject to flooding. Riparian woodland habitat was assessed at seven sites in Area Four (6-12). The HEP/HSI information is summarized in Table 7.

Table 7. Riparian Woodland and Grassland Habitat Scores for Area Four, Olmos Creek Aquatic Ecosystem Restoration Project.					
Habitat	Species Habitat Suitability Index Habitat Units				Average
	Raccoon	Barred Owl	Fox Squirrel	Green Heron	
Riparian Woodlands	0.69	0.45	0.33	0.92	0.60
	35	23	17	46	30

The riparian woodland scores for Area Four were relatively low (0.60). This portion of the stream habitat had some large diameter trees and had a very good stream canopy cover that are essential habitat components for raccoon (0.69), barred owl (0.45), and fox squirrel (0.33).

However, the presence of many smaller sized trees limited the habitat value of this area for raccoon and barred owl. There was a surprising lack of pecan, oak, and other hard mast producing trees in this area. This lack of hard mast producing trees limited the food value and contributed to the low habitat suitability for fox squirrel. In addition, many of the tree species noted were not native vegetation. All ligustrum (*ligustrum* spp.), chinaberry (*Melia azedarach*), Chinese tallow (*Sapium sebiferum*), and other non-native species should be removed. The green heron (0.92) habitat was good because the stream itself was productive and the streamside vegetation provided excellent hunting cover.

Area Four – Aquatic Habitat

The aquatic habitat within Area Four, while not perennial is in good condition. Deep pools and a shady stream provide good aquatic habitat. While this area goes dry during the summer, it provides an important link between downstream pools and upstream permanent water. The creek has good streamside shade and fair riparian habitat. An analysis of stream shade was conducted along this stretch of Olmos Creek (Figure 12). Overall the canopy is very good, with dense shade along most of the stream.

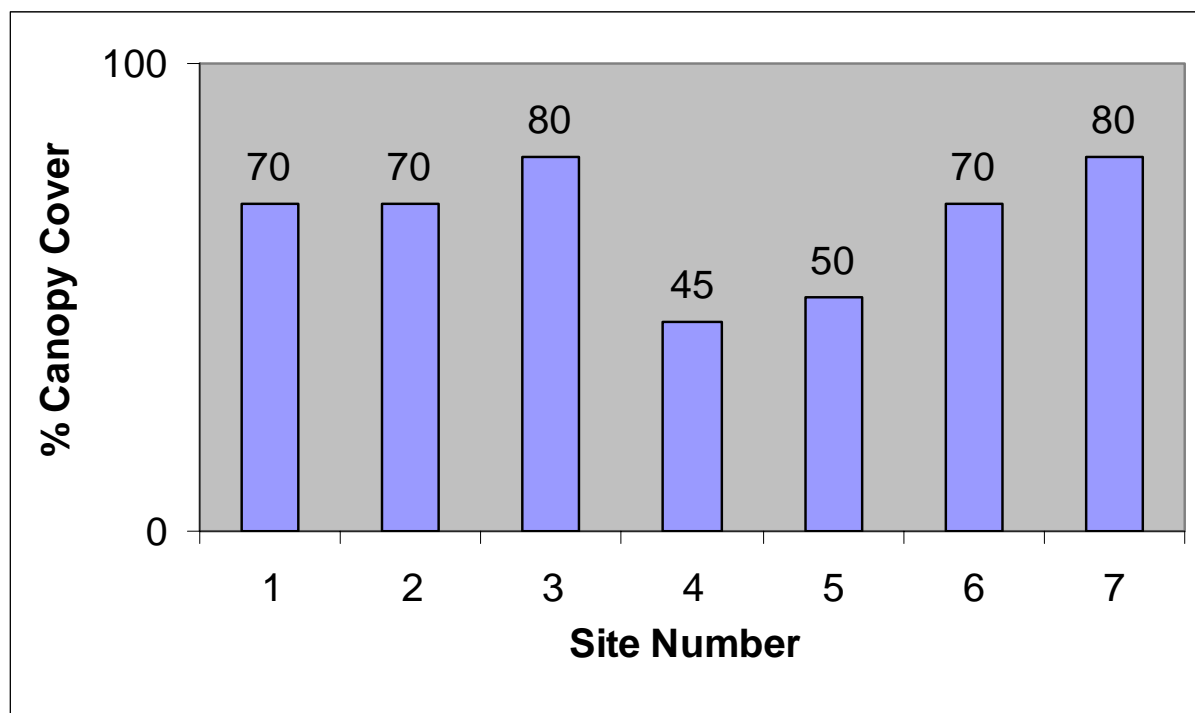


Figure 12. Olmos Creek canopy closure in Area Four of the Olmos Creek Restoration Project.

This area also contained some deciduous forested wetlands that fill with water periodically following rainfall events. These areas are very productive habitats for resident and migrating wildlife species and should be maintained. There was a large amount of garbage present that should be cleaned up as well. The area would be excellent for an interpretative trail focusing on birding.

Area Five – Grasslands

Area Five is located between Highway 281 and the Olmos Basin Shooting Range (Figure 1). This area is a forb-dominated grassland and one site (18) was sampled in this grassland. The HEP/HSI information is summarized in Table 8.

Habitat	Species Habitat Suitability Index Habitat Units				Average
	Grasslands	Red-tailed Hawk	Scissor-tailed Flycatcher	Meadowlark	
	0.90	1.00	0.17	0.12	0.55
	18	20	3	2	11

The habitat suitability scores for Area Five were relatively low (0.55). The area provided excellent habitat for the red-tailed hawk (0.90) and the scissor-tailed flycatcher (1.00) due to high capacity for rodent and insect food production. Meadowlark (0.17) and Eastern cottontail rabbit (0.12) scores were very low. The meadowlark scores were low because of a lack of grass for food production and perching sites. The rabbit habitat was poor because of a total lack of hiding cover in the grassland.

ENDANGERED SPECIES

Bexar County

Black-capped vireo	(E)	<i>Vireo atricapillus</i>
Golden-cheeked warbler	(E)	<i>Dendroica chrysoparia</i>
Madla cave meshweaver	(E w/CH)	<i>Cicurina madla</i>
Robber Baron Cave meshweaver	(E w/CH)	<i>Cicurina baronia</i>
Braken Bat Cave meshweaver	(E w/CH)	<i>Cicurina venii</i>
Government Canyon Bat Cave meshweaver	(E)	<i>Cicurina vespera</i>
Government Canyon Bat Cave spider	(E)	<i>Neoleptoneta microps</i>
Cokendolpher cave harvestmen	(E w/CH)	<i>Texella cokendolpheri</i>
Ground beetle (no common name)	(E w/CH)	<i>Rhadine exilis</i>
Ground beetle (no common name)	(E w/CH)	<i>Rhadine infernalis</i>
Helotes mold beetle	(E w/CH)	<i>Batrisodes venyivi</i>
Black-tailed prairie dog	(C)	<i>Cynomys ludovicianus</i>

There are eleven endangered, and one candidate species that are federally listed and known to occur within Bexar County. There is no habitat for any of the endangered species or the candidate species within the project area. There is critical habitat designated for several karst invertebrates in Bexar County, but no critical habitat is located within the proposed project area. Therefore, the proposed project should have no effect on these species.

FUTURE WITHOUT PROJECT

Staff from the U.S. Army Corps of Engineers, Texas Parks and Wildlife Department, and the U.S. Fish and Wildlife Service discussed the potential variables that could affect the habitat and its value within the study area. Several items identified were non-native species invasion, habitat fragmentation, and habitat destruction. There is expected to be a decrease in habitat values due to continued fragmentation and exotic species invasion over the next 50 years.

Overall, there should be a decrease in habitat quantity and quality (Table 9). Therefore, it is essential that every attempt is made to implement nonstructural options to the extent practicable, and if it is not practicable, then every attempt should be made to protect and restore the habitat.

Table 9. Future without the Project projections for Olmos Creek Aquatic Ecosystem Restoration Project.				
Habitat	Timeframe			
	Habitat Suitability Index			
	Habitat Units			
	Existing	10 Years	25 Years	50 Years
Riparian Woodlands	0.60	0.50	0.35	0.20
	37	31	21	12
	Existing	10 Years	25 Years	50 Years
Grasslands	0.78	0.70	0.65	0.55
	30	27	25	21
	Existing	10 Years	25 Years	50 Years
Grasslands Golf Course	0.53	0.53	0.53	0.53
	4	4	4	4

Project Recommendations

Based on the existing condition of the fish and wildlife habitat within the project area, the U.S. Fish and Wildlife Service offers the following recommendations for each area.

Area One

The stream channel through Area One is relatively open and exposed to solar radiation. Stream temperatures are high and probably limit aquatic ecosystem productivity. We recommend establishing a riparian woodland/grassland management area, along Olmos Creek, through Area One. The area should be a minimum of 300 feet (92 meters) on either side of the stream and managed for fish and wildlife habitat values. In general, the areas should be planted with pecan, oak, cottonwood, and willow trees to reestablish riparian woodland habitat and to increase the diversity of species available for food production, hiding cover, and nesting/denning habitat. The first 100-200 feet (31-62 meters) should be managed for woodland habitat with riparian trees closer to the creek, gently fading to upland tree species. The last 100 feet (31 meters) should be managed as grassland. The diversity in this grassland could be enhanced by the introduction of mottes of shrubs and native grasses interspersed with the existing forb habitat. For aquatic habitat values, increasing the bank stability with willow planting would provide good cover, and shade.

Area Two

The stream channel through the golf course is open and exposed to solar radiation. Stream temperatures are high and probably limit aquatic ecosystem productivity. We recommend establishing a riparian woodland/grassland management area, along Olmos Creek, through Area Two. The area should be a minimum of 50 feet (15 meters) on either side of the stream and managed for fish and wildlife habitat values. Since this area is managed as a golf course, efforts should be made to increase stream shade in areas that would not impact play. Planting trees along the streams could be accomplished without impacting play. The streambank area should be managed to increase streambank stability and riparian habitat values. In general, the areas should be planted with pecan, oak, and willow trees to reestablish riparian woodland habitat and to increase stream shade. Eroding streambanks around low water golf cart crossings should be stabilized. The concrete channel at the bottom of Area Two should be modified to provide fish passage by reducing stream width and increasing stream depth. This would also serve to reduce solar radiation and moderate stream temperatures.

Area Three

The stream channel and riparian habitat through Area Three is generally in good condition. Efforts in this area should focus on nonnative species removal and providing a buffer along the stream through the park area. The sewer lines and abandoned bridges are impacting the aquatic health of the stream system and should be removed or buried beneath the stream. There should also be hard mast plantings in the area upstream of Olmos Basin Park.

Area Four

The stream channel and riparian habitat through Area Four is generally in fair condition. Efforts in this area should focus on nonnative species removal and planting of hard mast producing trees such as oaks and pecans. Removing the accumulated trash and debris and establishing a

birding/interpretive trail along the deciduous wetlands would increase visitor use and enjoyment of this area.

Area Five

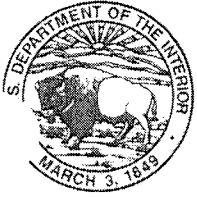
Native grasslands should be reestablished in this area. The grasslands would contribute to the habitat diversity and food production within the study area. In addition, planting mottes of native shrubs and grasses within this area would also increase habitat diversity and species use of this area. The existing grassland could be enhanced by increasing the amount of native grass species to improve food availability for seed eating species.

Literature Cited

Fentress, C.D., 1986. "Wildlife of Bottomlands: Species and Status," Bottomland Hardwoods in Texas: Proceedings of an Interagency Workshop on Status and Ecology, Craig A. McMahan and Roy G. Frye, editors. May 6-7, 1986. (Austin: Texas Parks and Wildlife Department, Wildlife Division, March 1987). 37.

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U.S. Fish and Wildlife Service. 1980. The habitat evaluation procedures. USDI Fish and Wildlife Service, Ecological Services Manual 102.



United States Department of the Interior

FISH AND WILDLIFE SERVICE
10711 Burnet Road, Suite 200
Austin, Texas 78758
512 490-0057
FAX 490-0974

Mark FYI

Mike V



DEC 16 2004

Colonel John R. Minahan
District Engineer
U.S. Army Corps of Engineers
P.O. Box 17300
Fort Worth, Texas 76102-0300

Dear Colonel Minahan:

This letter is to provide support for the U.S. Army Corps of Engineers (USACE) Planning Design Report and Environmental Assessment for the Olmos Creek Section 206 Aquatic Ecosystem Restoration Project, Bexar County, Texas. The project will enhance about 96 acres of riparian area through the restoration of bottomland hardwoods, native prairie, and instream aquatic habitat in Olmos Creek. Methods to be used include: removal of native and non-native invasive plant species, planting native soft and hard mast trees, planting native grasses and forbs, and placement of physical erosion control measures. The U.S. Fish and Wildlife Service (Service) concurs that these proposed measures are an effective way to restore this section of Olmos Creek for fish and wildlife resources and for benefit to the City of San Antonio. The Service applauds the City of San Antonio and USACE for taking a responsible lead in restoring urban riparian areas.

This planning assistance is provided, in part, pursuant to the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) and is intended to assist in USACE project development. We appreciate the opportunity to assist and to be actively involved with the Fort Worth District in ecosystem restoration projects like this one for Olmos Creek. If you have any questions or comments please contact Marty Underwood (marty_underwood@fws.gov) at (512) 490-0057.

Sincerely,

Robert T. Pine
Supervisor

cc: Tom Heger, Texas Parks and Wildlife Department, Austin, Texas
Michael Votaw, Ft. Worth District, U.S. Army Corps of Engineers. Ft. Worth, Texas.

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OCT 23 2003

Colonel John R. Minahan, District Engineer
U.S. Army Corps of Engineers (CESWF-PER-EE)
P.O. Box 17300
Fort Worth, Texas 76102-0300

Consultation # 02-15-03-I-0164

Dear Colonel Minahan:

This letter provides planning assistance for the Olmos Creek Aquatic Ecosystem Restoration Project in San Antonio, Bexar County, Texas. The project will evaluate various alternatives to identify and implement ecosystem restoration activities within the study area. The purpose of this letter is to identify and describe existing fish and wildlife resources and opportunities within the proposed project area.

This planning assistance is provided, in part, pursuant to the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) and is intended to assist in the development of your draft feasibility report. It does not represent a final report of the Secretary of the Interior within the meaning of Section 2(b) of the Act. A complete draft Fish and Wildlife Coordination Act report will be prepared, for consideration and to accompany the feasibility report, after we have reviewed all available pertinent information during the planning process.

These studies were initiated at the request of the City of San Antonio, where plans are being made to restore aquatic ecosystems within the Olmos Creek basin. Project area inspections were conducted in April, May, June, and September of 2003, by U.S. Fish and Wildlife Service staff. The May and July 2003, field visits to gather habitat evaluation procedures data were accomplished with help from Texas Parks and Wildlife Department and your environmental planning staff. If you have any questions or comments concerning this study, please contact Dawn Whitehead at (512) 490-0057, extension 222. We look forward to continued coordination with your planning staff as this project investigation proceeds.

Sincerely,

Robert T. Pine
Supervisor

Enclosure

cc: Tom Heger, TPWD, Austin, Texas





United States Department of the Interior



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NOV 28 2005

Colonel John R. Minahan
District Engineer
U.S. Army Corps of Engineers
P.O. Box 17300
Fort Worth, Texas 76102-0300

Consultation #: 21450-2006-FA-0001

Dear Colonel Minahan:

This letter provides additional support and comments to the concurrence letter the U.S. Fish and Wildlife Service (Service) provided on December 14, 2004, for the U.S. Army Corps of Engineers (USACE) Planning Design Report and Environmental Assessment for the Olmos Creek Section 206 Aquatic Ecosystem Restoration Project, Bexar County, Texas. The Service concurs that these proposed measures are an effective way to restore this section of Olmos Creek for fish and wildlife resources and for benefit to the City of San Antonio.

In addition to the proposed restoration measures, protection of planted seedlings of hard mast trees is imperative to the success of this project. White-tailed deer (*Odocoileus virginianus*) can be detrimental to the recruitment of hard mast trees, especially in urban areas where white-tailed deer are very common. Deer prefer certain plant species over others and frequently feed on economically valuable tree species¹, in this case pecan (*Carya illinoensis*). Thus, less marketable species are more likely to survive to maturity, replacing more valuable trees. In many urban areas of Central Texas where white-tailed deer are common, desirable species like pecan are only represented as larger older trees with no smaller size classes nearby. The white-tailed deer browse all of the available seedlings, allowing for no recruitment when the older trees are lost or perish. The Service recommends using some form of protection on at least the hard mast tree species planted. Temporary cages or enclosure fencing would be useful until the foliage attains heights above the browse, approximately six feet (two meters).

This planning assistance is provided, in part, pursuant to the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) and is intended to assist in USACE project

¹ Curtis, P.D. and K.L. Sullivan. 2001. Wildlife Management Fact Sheet Series – White-tailed Deer. Cornell Cooperative Extension, Cornell University, Ithaca, NY. 6 pages.

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Colonel Minahan

2

development. We appreciate the opportunity to assist the Fort Worth District in ecosystem restoration projects like this one for Olmos Creek. If you have any questions or comments please contact Marty Underwood (marty_underwood@fws.gov) at (512) 490-0057.

Sincerely,

A handwritten signature in black ink, appearing to read "R. T. Pine". The signature is fluid and cursive, with a long horizontal stroke at the end.

Robert T. Pine
Supervisor

cc: Tom Heger, Texas Parks and Wildlife Department, Austin, Texas
Michael Votaw, Ft. Worth District, U.S. Army Corps of Engineers. Ft. Worth, Texas.



United States Department of the Interior

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NOV 15 2006

William Fickel, Division Chief
Planning, Environmental, and Regulatory Division
U.S. Army Corps of Engineers
P. O. Box 17300
Fort Worth, Texas 76102-0300

Consultation No. 21450-2006-FA-001

Dear Mr. Fickel:

Thank you for providing us the November, 2006, Planning Design Report and Environmental Assessment for Olmos Creek Section 206 Aquatic Ecosystem Restoration Project, Bexar County, Texas.

On November 28, 2005, we provided a draft Fish and Wildlife Coordination Act Report (CAR). On September 13, 2006, we met with Texas Parks and Wildlife Department (TPWD) to discuss the most recent changes to the project. Please consider the November 28, 2005, document as our final Fish and Wildlife Coordination Act Report to the U.S. Army Corps of Engineers (USACE) for the Olmos Creek project. This planning assistance is provided, in part, pursuant to the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.). In general, the U.S. Fish and Wildlife Service and TPWD concur that the Olmos Creek project will benefit fish and wildlife resources (enclosure).

It is our understanding that funding for monitoring has decreased from earlier project descriptions. We recommend technical specifications for woodland and aquatic habitat restoration include measures to help ensure the success of plantings and other habitat improvements.

Thank you for your efforts to enhance our nation's fish and wildlife resources. If you have any questions or comments or need further information, please contact Patrick Connor at (512) 490-0057, extension 227.

Sincerely,

Robert T. Pine
Supervisor

cc with enclosure: Tom Heger, TPWD, Austin, TX

"Tom Heger"
<Tom.Heger@tpwd.state.tx.us>

11/13/2006 03:49 PM

To <Patrick_Connor@fws.gov>

cc

bcc

Subject RE: DRAFT version of letter converting draft FWCAR to final on OLMOS CREEK

From our discussion on 13 September 2006 I understand that monitoring funds have decreased significantly from earlier project descriptions. While this isn't optimal, I still feel this project will provide benefits for fish and wildlife resources. It is particularly important now that technical specifications for habitat restoration and subsequent management include measures to ensure the success of plantings and the long-term viability of all habitat improvements. TPWD concurs with the letter you provided, in draft, converting the draft Fish and Wildlife Coordination Act Report on Olmos Creek to a final version.

Tom Heger
Wetland Coordinator
Texas Parks and Wildlife Department

-----Original Message-----

From: Patrick_Connor@fws.gov [mailto:Patrick_Connor@fws.gov]

Sent: Tuesday, November 07, 2006 3:17 PM

To: Tom Heger

Cc: Rob.Newman@swf02.usace.army.mil; Bill_Seawell@fws.gov; Dawn_Whitehead@fws.gov

Subject: DRAFT version of letter converting draft FWCAR to final on OLMOS CREEK

Importance: High

Tom:

Please let me know if you have any suggested changes.

Would like to finalize on Wednesday 8 Nov.

Thanks.