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HRS DOCUMENTATION RECORD

for

First Quality Cylinders

San Antonio, Texas

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August 1999

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TNRCC

*Protecting Texas
by Reducing and
Preventing Pollution*

Hazard Ranking System Documentation Record

**First Quality Cylinders
San Antonio, Texas
SWR No. 38564**

**Prepared by
Texas Natural Resource Conservation Commission
Superfund Site Discovery and Assessment Program
Austin, Texas**

August 1999

**HRS
Documentation Record**

**First Quality Cylinders
San Antonio, Texas**

TNRCC SWR#38564

Prepared by

**Texas Natural Resource Conservation Commission
Site Evaluation, Remediation and Restoration Section
Site Discovery and Assessment Program
Austin, Texas**

August 1999

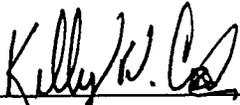
HRS DOCUMENTATION RECORD

FIRST QUALITY CYLINDERS

SAN ANTONIO, TEXAS

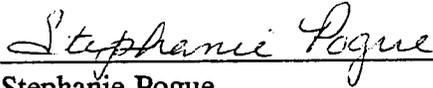
SWR 38564

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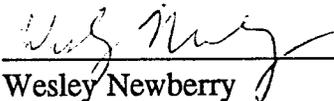
Kelly W. Cook
Texas Natural Resource Conservation Commission
Superfund Site Discovery and Assessment Program
Project Manager

8/26/99
Date



Stephanie Pogue
Texas Natural Resource Conservation Commission
Superfund Site Discovery and Assessment Program
QA/QC Officer

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Date



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Team Leader

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Jacqueline S. Hardee, P.E.
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8/30/99
Date

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ATTACHMENTS

Attachment A - US Geological Survey 7.5 Minute Topographic Maps
 San Antonio East Quadrangle. 1992.
 San Antonio West Quadrangle. 1993.

HRS DOCUMENTATION RECORD - REVIEW COVER SHEET

SITE NAME: FIRST QUALITY CYLINDERS

CONTACT PERSON:

Documentation Record: Kelly W. Cook 512/239-2525
TNRCC Project Manager

PATHWAYS, COMPONENTS, OR THREATS NOT EVALUATED:

Surface Water Pathway

The Ground Water to Surface Water Migration Component of the Surface Water Migration Pathway was not evaluated due to the lack of an observed release. The Drinking Water Threat in the Surface Water Overland/Flood Migration Pathway was not evaluated due to the lack of drinking water targets within the 15 mile Target Distance Limit (TDL). The Human Food Chain Threat in the Surface Water Overland/Flood Migration Pathway was not evaluated due to the lack of an observed release. The Environmental Threat in the Surface Water Overland/Flood Migration Pathway was not evaluated due to the lack of an observed release.

Soil Exposure Pathway

The Soil Exposure Pathway was not evaluated due to the lack of targets and because the inclusion of this pathway would not significantly affect the site score. In addition, the site is currently paved with an impervious material (asphalt) and secured behind a maintained chain link fence, thereby restricting access to targets.

Air Migration Pathway

The Air Migration Pathway was not evaluated due to the lack of an observed release.

(Although these pathways have not been evaluated, the TNRCC is concerned for all pathways surrounding the site. However, evaluation of these pathways would not have significantly increased the overall site score.)

NOTES TO THE READER

The following rules were used when citing references in the HRS Documentation Record:

1. All references attached to this report have been stamped with a designated page number (example: Ref. 1, p. 10 = 001 00010). However, if the reference being cited has an original page number, that page number was cited. If the reference being cited has no original page number or the pagination is not complete, then the designated page number is cited.
2. The State predecessor agencies: Texas Water Quality Board (TWQB), Texas Department of Water Resources (TDWR), Texas Water Commission (TWC), and Texas Air Control Board (TACB), referred to throughout this report are now known as the Texas Natural Resource Conservation Commission (TNRCC). The new agency, TNRCC, became effective September 1, 1993, as mandated under State Senate Bill 2 of the 73rd Regular Legislative Session.

HRS DOCUMENTATION RECORD

Name of Site: First Quality Cylinders **Date Prepared:** 8/99

Solid Waste Registration (SWR) Number: 38564

Site Owner: Mr. Morris Jaffee 512/341-3351
243 Central Park
San Antonio, Texas 78216

Street Address of Site: 931 West Laurel

City, County, State: San Antonio, Bexar County, Texas

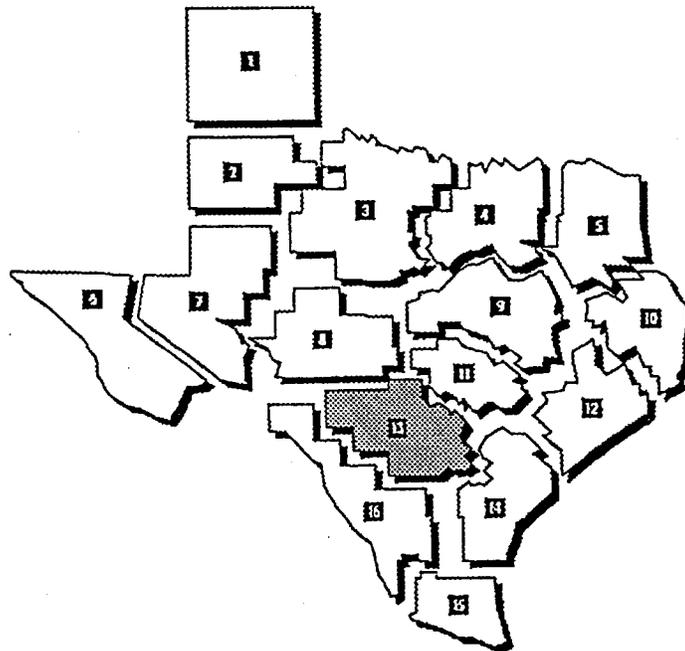
General Location in the State: (see Figure 1, Site Location Map)

Topographic Map(s): US Geological Survey 7.5 Minute Topographic Map, San Antonio West Quadrangle and San Antonio East Quadrangle.

Latitude: 29° 27' 15" North

Longitude: 98° 30' 15" West
(see Appendix A)

TNRCC Region: 13



Pathway Scores:
Groundwater Migration -100
Surface Water Migration - NE
Soil Exposure - NE
Air Migration - NE
(NE - Not Evaluated)

HRS SITE SCORE: 50



Protecting Texas by
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First Quality Cylinders

San Antonio (Bexar County) Texas



1.8 Miles

0.9

0

0.9

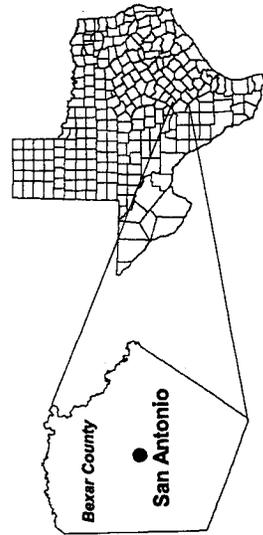


Figure 1 Site Location Map

SITE SUMMARY

The First Quality Cylinder (aka: Quality Cylinders, Inc., International Aircraft Cylinders, Inc. and Aero Chrome Services, Inc.) site is located in San Antonio, Bexar County, Texas. The site consists of an inactive plating facility situated on approximately 1.3 acres of property addressed at 931 West Laurel Street in northwest-central downtown San Antonio (see Site Location Map, Figure 1). The approximate geographic coordinates of the site are Latitude 29° 27' 15"N and Longitude 98° 30' 15"W (see Attachment A).

Former site operations included the rebuilding of aircraft cylinders utilizing a chromium-plating process. These operations were conducted at the site from 1986 until it was abandoned in January of 1994 (Ref. 3 and 5). Site improvements include a warehouse building located on the western portion of the site where the chromium-plating process was conducted. The remaining area of the site has been paved with asphalt and fenced, and contains a shallow groundwater recovery system with a French drain, three recovery wells, and a pump system with a 6,000 gallon above-ground storage tank (Ref. 6). (see Figure 2, Site Map).

In April of 1988, during renovation of a plating line, workers at the site discovered subsurface leakage of chromium plating solution. Then in June of 1988, during excavation work to repair an external sewer line, a "spring" was discovered along the northeast side of the plating facility. A French drain system was installed to collect the groundwater. The French drain was placed approximately seven(7) feet below ground surface and fifteen(15) feet below the foundation level of the existing facility. It was estimated that approximately 200 gallons of groundwater were recovered each week from the French drain. After the French drain had been operated for several months the water from the "spring" began to display a yellowish hue. On September 8, 1989, after notification of the "spring" by the facility operators, Texas Water Commission (TWC) District 8 representatives collected a sample of the groundwater. Analytical results for this sample indicated EP toxic levels of chromium at 887 mg/l (Ref. 7).

On January 28, 1992, TWC District 8 Representatives responded to a complaint of "yellow-green colored water" discharging from the site to Mullen Street, West Laurel Street and, Fredericksburg Road. A subsequent complaint investigation resulted in a Notice of Violation Letter being issued to International Aircraft Cylinders, Inc. for permit violations, for the disposal of hazardous waste on-site and, the unauthorized discharges of chromium waste waters to the public streets and potentially nearby San Pedro Creek (Ref. 13).

On March 19, 1993, a spill of approximately 200 gallons of chromium-contaminated wastewater occurred at the site. Concentrated chromium plating wastewater was discharged on-site when a hose connection failed during the transfer of hazardous wastewater to a temporary storage tank (Ref 3). On May 5, 1993, TWC District 8 Representatives collected stormwater runoff samples from the site during torrential rains because of concerns that the contaminated soil, from the March 19, 1993 chromium-contaminated wastewater spill, had never been removed from the site. Analytical results for the stormwater runoff samples indicated TCLP chromium levels ranging from 0.08 mg/l to 4.3 mg/l being discharged off-site. An additional sample of stormwater collected from an open excavation area on-site revealed a TCLP chromium level of 14.0 mg/l (Ref. 10).

On May 25, 1993, TWC District 8 Representatives collected three groundwater split samples from monitoring wells that had been placed around the site as part of the Fredericksburg Road/San Pedro Creek Project. Sample results from two of the wells revealed total chromium levels ranging from of 13 mg/l to 79 mg/l (Ref. 9 and 10). On September 14, 1993, Texas Natural Resource Conservation Commission (TNRCC) Region 13 representatives split two groundwater samples from these same wells. Hexavalent chromium levels were found this time ranging from 75 mg/l to 80 mg/l (Ref. 9 and 10).

In September 1997, the TNRCC, Superfund Site Discovery and Assessment Program initiated immediate removal actions to dispose of on-site wastes inside the warehouse and to repair and provide operations and maintenance of the on-site shallow groundwater recovery system for two years (Ref. 6).

Releases of hazardous substances to the ground water pathway are the major concern for this site. Hazardous substances have been documented in the subsurface soils and shallow ground water beneath the site. The Edwards Aquifer is the aquifer of concern for ground water pathway, which was scored as a karst aquifer, based on the threat of potential contamination.



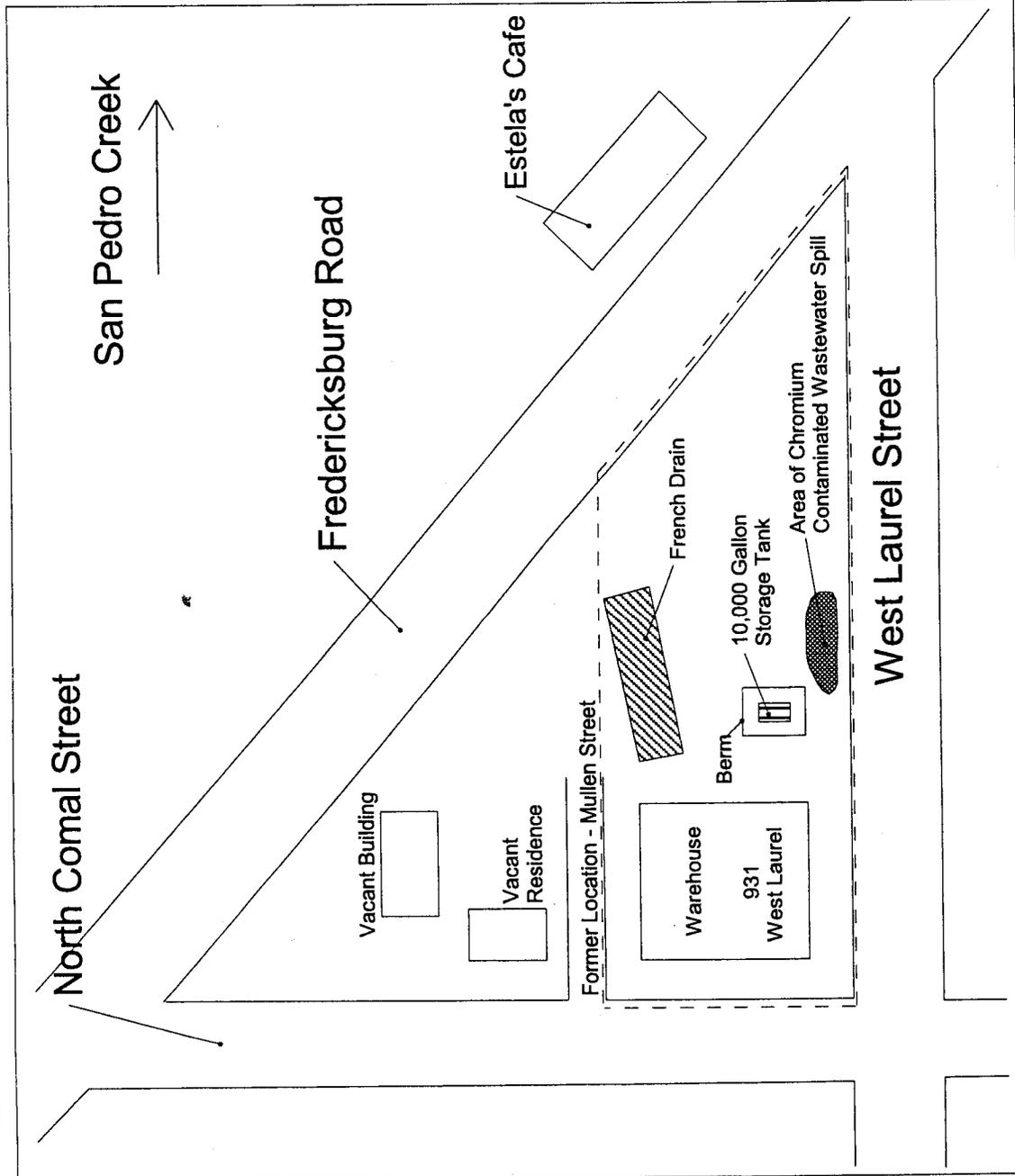
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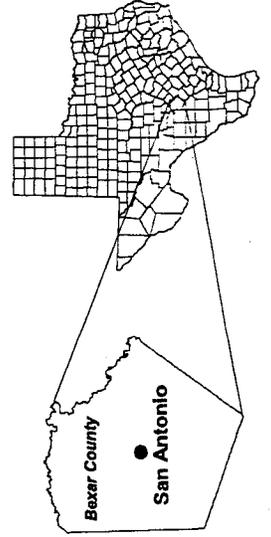
San Antonio (Bexar County) Texas



Figure 2 Site Map



Not To Scale



REFERENCES

- | <u>Reference Number</u> | <u>Description of the Reference</u> |
|-------------------------|---|
| 1. | U.S. Environmental Protection Agency, 40 CFR Part 300, Hazardous Ranking System, Appendix A, 55 FR 51583, December 14, 1990. |
| 2. | U.S. Environmental Protection Agency, Superfund Chemical Data Matrix (SCDM). June 1996. |
| 3. | U.S. Environmental Protection Agency, Preliminary Assessment Report for First Quality Cylinders. October 1995. Three Volumes. |
| 4. | U.S. Environmental Protection Agency, Screening Site Inspection Report for First Quality Cylinders. October 1997. |
| 5. | Texas Natural Resource Conservation Commission, Interoffice Memorandum. From: Douglas Crist, Industrial & Solid Waste Section, To: Stennie Meadours, Emergency Response & Assessment Section. October 14, 1996. |
| 6. | Texas Natural Resource Conservation Commission, Interoffice Memorandum. From: Abigail Power, Superfund Site Discovery & Assessment Program, To: Files. January 20, 1998. |
| 7. | Texas Natural Resource Conservation Commission, Interoffice Memorandum. From: Allen P. Beinke, Executive Director, To: the Commissioners. May 24, 1990. |
| 8. | Aero Chrome Services, Inc., Letter. To: Craig Meppen, Texas Water Commission, Solid & Hazardous Waste Division. April 2, 1993. |
| 9. | IT Analytical Services, Inc., Laboratory Reports. May 25, 1993 and September 14, 1993. |
| 10. | Texas Water Commission, Compliance Evaluation Inspection Report. August 12, 1994. |
| 11. | Texas Natural Resource Conservation Commission, Public Water Supply Files Number G0150018, G0150039, G0150116, G0150302, G0150425, G0150249, and G0150381. |
| 12. | Cook, Kelly W., Texas Natural Resource Conservation Commission, Record of Communication. From: Dave Terry, Texas Natural Resource Conservation Commission, Public Drinking Water Section. August 26, 1999. |
| 13. | Texas Water Commission, Interoffice Memorandum. From: Henry Karnei, Jr., Manager Solid Waste Program, District 8, To: Files. February 3, 1992. |

WORKSHEET FOR COMPUTING HRS SITE SCORE

	<u>S</u>	<u>S²</u>
1. Ground Water Migration Pathway Score (S_{gw}) (from Table 3-1, line 13)	<u>100</u>	<u>10,000</u>
2a. Surface Water Overland/Flood Migration Component (from Table 4-1, line 30)	<u>NE</u>	
2b. Ground Water to Surface Water Migration Component (from Table 4-25, line 28)	<u>NE</u>	
2c. Surface Water Migration Pathway Score (S_{sw}) Enter the larger of lines 2a and 2b as the pathway score.	<u>NE</u>	
3. Soil Exposure Pathway Score (S_s) (from Table 5-1, line 22)	<u>NE</u>	
4. Air Migration Pathway Score (S_a) (from Table 6-1, line 12)	<u>NE</u>	
5. Total of $S_{gw}^2 + S_{sw}^2 + S_s^2 + S_a^2$	<u>10,000</u>	
6. HRS Site Score Divide the value on line 5 by 4 and take the square root.	<u>50</u>	

GROUND WATER MIGRATION PATHWAY SCORESHEET
Edwards Aquifer

<u>Factor Categories and Factors</u>	<u>Maximum Value</u>	<u>Value Assigned</u>
<u>Likelihood of Release to an Aquifer</u>		
1. Observed Release <i>(No Observed Release to Edwards Aquifer Established)</i>	550	<u>0</u>
2. Potential to Release		
2a. Containment <i>(Ref. 1, Table 3-2; Ref. 9 & 10)</i>	10	<u>10</u>
2b. Net Precipitation <i>(Ref. 1, Figure 3-2)</i>	10	<u>1</u>
2c. Depth to Aquifer <i>(Ref. 1, Table 3-5; Ref. 3, App. F)</i> <i>(Ref. 4, p. 10 through 16)</i>	5	<u>1</u>
2d. Travel Time <i>(Ref. 1, Table 3-7; Ref. 3, App. F)</i>	35	<u>5</u>
2e. Potential to Release <i>(Lines 2a(2b + 2c + 2d))</i>	500	<u>70</u>
3. Likelihood of Release <i>(Higher of Line 1 and 2e)</i>	550	<u>70</u>
<u>Waste Characteristics</u>		
4. Toxicity/Mobility <i>(Ref. 1, Sect. 3.2.1.2; Chromium, Ref. 2)</i>	*	<u>10,000</u>
5. Hazardous Waste Quantity <i>(Ref. 1, Sect. 2.4.2.2, Default)</i>	*	<u>10</u>
6. Waste Characteristics <i>(Ref. 1, Table 2-7)</i>	100	<u>18</u>
<u>Targets</u>		
7. Nearest Well <i>(Ref. 1, Sect. 3.3.1; Karst Aquifer)</i>	50	<u>20</u>
8. Population:		
8a. Level I Concentrations	**	<u>0</u>
8b. Level II Concentrations	**	<u>0</u>
8c. Potential Contamination <i>(Ref. 1, Sect. 3.3.2.4; Ref. 11)</i>	**	<u>35,046</u>
8d. Population <i>(Lines 8a + 8b + 8c)</i>	**	<u>35,046</u>
9. Resources	5	<u>0</u>
10. Wellhead Protection Area <i>(Ref. 1, Sect. 3.3.4; Ref. 12)</i>	20	<u>5</u>
11. Targets <i>(Lines 7 + 8d + 9 + 10)</i>	**	<u>35,071</u>

* Maximum value applies to waste characteristics category.

** Maximum value not applicable.

GROUND WATER MIGRATION PATHWAY SCORESHEET - (Continued)
Edwards Aquifer

<u>Ground Water Migration Score for an Aquifer</u>	<u>Maximum Value</u>	<u>Value Assigned</u>
12. Aquifer Score ((Lines 3 x 6 x 11)/82,500)***	100	<u>100</u>
<u>Ground Water Migration Pathway Score</u>		
13. Pathway Score (S_{gw}), (Highest value from Line 12 for all aquifers evaluated)***	100	<u>100</u>

*** Do not round to nearest integer.