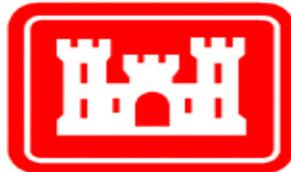


**FINAL PHASE I ENVIRONMENTAL SITE ASSESSMENT
BONNET CARRE BORROW AREA
NORTH OF AIRLINE HIGHWAY
ST. CHARLES PARISH, LOUISIANA
CONTRACT NUMBER: W912P8-07-D-0057
TASK ORDER NUMBER: 0019**



**US Army Corps
of Engineers**

PREPARED FOR:

US Army Corps of Engineers, Mississippi Valley Division
New Orleans District (USACE-MVN)
Environmental Division
7400 Leake Avenue
New Orleans, Louisiana 70118

PREPARED BY:



Aerostar Environmental Services, Inc.
4640 South Carrollton Avenue, Suite 160
New Orleans, Louisiana 70119
(504) 486-8368

AES Project Number 0807-333-02

July 23, 2007

TABLE OF CONTENTS

1.0 EXECUTIVE SUMMARY 1

1.1 Site Name 1

1.2 Inspection Date(s) 1

1.3 Name of Inspector(s)..... 1

1.4 Client and User..... 1

1.5 Site Description and General Observations..... 1

1.6 Findings and Conclusions..... 1

1.7 Recommendations..... 2

2.0 INTRODUCTION 3

2.1 Purpose 3

2.2 Scope of Work 3

2.2.1 Records Review 3

2.2.2 Site Reconnaissance 4

2.2.3 Interviews..... 4

2.2.4 Report Preparation 4

2.3 Limitations..... 4

2.3.1 Data Gaps..... 5

2.4 Special Terms and Conditions 6

2.5 User Reliance..... 6

3.0 SITE DESCRIPTION..... 7

3.1 Location 7

3.2 Site and Vicinity General Characteristics 7

3.3 Current Use(s) of the Site..... 7

3.4 Structures, Roads, and Other Improvements on the Site..... 7

3.4.1 Existing Structures..... 7

3.4.2 Existing Roads..... 7

3.4.3 Heating/Cooling System..... 7

3.4.4 Utilities (including Sewage Disposal)..... 7

3.4.5 Potable Water..... 8

3.5 Current Uses of the Adjoining Properties 8

4.0 USER PROVIDED INFORMATION 9

4.1 Title Records 9

4.2 Environmental Liens or Activity and Use Limitations..... 9

4.3 Specialized Knowledge 9

4.4 Commonly Known or Reasonably Ascertainable Information 9

4.5 Valuation Reduction for Environmental Issues 9

4.6 Owner, Property Manager, and Occupant Information 9

4.7 Reason for Performing Phase I ESA 9

4.8 Other 9

5.0 RECORDS REVIEW 10

5.1 Standard Environmental Record Sources 10

5.2 Additional Environmental Record Sources..... 12

5.3 Physical Setting Sources 12

5.3.1 Regional Geology..... 12

5.3.2 Topography..... 12

5.3.3 Soils/Geology..... 13

5.3.4 Hydrogeology..... 13

5.4 Historical Use Information on the Site..... 14

5.5 Historical Use of Adjoining Properties 14

5.6	Standard Historical Sources Reviewed	14
5.6.1	Aerial Photograph Review	14
5.6.2	Property Ownership Records	15
5.6.3	City Directory Review	15
5.6.4	Sanborn Fire Insurance Map Review	16
5.6.5	Other Historical Sources	16
6.0	SITE RECONNAISSANCE	18
6.1	Methodology and Limiting Conditions	18
6.2	General Site Setting	18
6.2.1	Current Use(s) of the Site	18
6.2.2	Past Use(s) of the Site	18
6.2.3	Current Uses of Adjoining Properties	18
6.2.4	Past Uses of Adjoining Properties	18
6.2.5	Current or Past Uses in the Surrounding Area	18
6.2.6	Geologic, Hydrogeologic, Hydrologic, and Topographic Conditions	18
6.2.7	General Description of Structures	19
6.2.8	Roads	19
6.2.9	Potable Water Supplies	19
6.2.10	Sewage Disposal System	19
6.3	Exterior Observations	19
6.3.1	Hazardous Substances and Petroleum Products	19
6.3.2	Storage Tanks	19
6.3.3	Odors	19
6.3.4	Pools of Liquids	19
6.3.5	Drums	19
6.3.6	Unidentified Substance Containers	19
6.3.7	PCBs	19
6.3.8	Pits, Ponds or Lagoons	20
6.3.9	Stained Soil or Pavement	20
6.3.10	Stressed Vegetation	20
6.3.11	Solid Waste	20
6.3.12	Waste Water	20
6.3.13	Wells	20
6.3.14	Septic Systems	20
6.4	Interior Observations	20
6.4.1	Hazardous Substances and Petroleum Products	20
6.4.2	Storage Tanks	20
6.4.3	Odors	20
6.4.4	Pools of Liquid(s)	20
6.4.5	Drums	21
6.4.6	Unidentified Substance Containers	21
6.4.7	PCBs	21
6.4.8	Heating and Cooling	21
6.4.9	Stains or Corrosion	21
6.4.10	Drains and Sumps	21
7.0	INTERVIEWS	22
7.1	Interview with Site Owner	22
7.2	Interview with Site Manager	22
7.3	Interviews with Occupants	22
7.4	Interviews with Local Government Officials	22
7.5	Interviews with Others	22

8.0	FINDINGS AND OPINIONS	24
8.1	Known or Suspect Recognized Environmental Conditions	24
8.2	Historical Recognized Environmental Conditions	24
8.3	<i>De Minimis</i> Conditions	24
9.0	CONCLUSIONS	25
10.0	DEVIATIONS	26
11.0	ADDITIONAL SERVICES	27
12.0	REFERENCES	28
13.0	SIGNATURE OF ENVIRONMENTAL PROFESSIONALS	29
14.0	QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS	30

APPENDICES

APPENDIX A	Figures
APPENDIX B	Property Record Information
APPENDIX C	Site Photographs
APPENDIX D	Regulatory Database Report
APPENDIX E	Historical Reference Documentation
APPENDIX F	Interview Documentation
APPENDIX G	References
APPENDIX H	Qualifications of Environmental Professionals

LIST OF ABBREVIATIONS

AEROSTAR	Aerostar Environmental Services, Inc.
AI#	Agency Interest Number
AST	Aboveground Storage Tanks
ASTM	American Society for Testing and Materials
AULs	Activity and Use Limitations
CERCLIS	Comprehensive Environmental Response Compensation and Liability Information System
CORRACTS	RCRA Corrective Action
DoD	Department of Defense
EDMS	Electronic Document Management System
EDR	Environmental Data Resources, Inc.
ERGO	Environmental Review Guide for Operations
ERNS	Emergency Response Notification System
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
FIFRA	Federal Insecticides, Fungicide, & Rodenticide Act
FTTS	FIFRA/TSCA Tracking System
IC/EC	Institutional Controls/Engineering Controls
LDEQ	Louisiana Department of Environmental Quality
LDNR	Louisiana Department of Natural Resources
LSU	Louisiana State University
LTC	Louisiana Trade Commission
LUST	Leaking Underground Storage Tank
NFRAP	No Further Remedial Action Planned
NGVD	National Geodetic Vertical Datum
NPDES	National Pollutant Discharge Elimination System
NPL	National Priority List
NRCS	Natural Resource Conservation Service
PCB	Polychlorinated Biphenyls
PRC	Property Record Card
RCRA	Resource Conservation and Recovery Act
RCRA-LQG	RCRA Large Quantity Generators
RCRA-SQG	RCRA Small Quantity Generators
RCRA TSD	RCRA Treatment, Storage and Disposal
SHWS	Louisiana Hazardous Waste Sites
SONRIS	Strategic Online Natural Resources Information System
SWF/LF	Louisiana Solid Waste Facilities/Landfills
TSCA	Toxic Substance Control Act
TRI	Toxic Release Inventory
TSD	Treatment, Storage and Disposal
USCG	United States Coast Guard
USGS	United States Geological Survey
UST	Underground Storage Tank
VCP	Voluntary Cleanup Program

1.0 EXECUTIVE SUMMARY

1.1 Site Name

Bonnet Carre Borrow Area
North of Airline Highway, St. Charles Parish, Louisiana
Parcel #: N/A

1.2 Inspection Date(s)

June 19, 2007

1.3 Name of Inspector(s)

Emilie Wien, Chris Whitehead

1.4 Client and User

Client: United States Army Corps of Engineers, Mississippi Valley, New Orleans District (USACE-MVN)
User: \USACE-MVN

1.5 Site Descriptions and General Observations

At the time of our investigation, the project site consisted of 680 acres of undeveloped land located along the north side of Airline Highway in St. Charles Parish, Louisiana. Access to the site is available from Airline Highway to the south. The site is bordered by undeveloped land, followed by the Bonnet Carre Floodway to the north; undeveloped land, followed by a drainage canal and the Upper Guide Levee, to the west; undeveloped land, followed by a drainage canal, the Lower Guide Levee, Air Liquide and Shell Chemical to the east; and Airline Highway, followed by undeveloped property used as a former sand pit, to the south.

Based on the review of aerial photographs, historical topographic maps, and interviews, the site appears to have been undeveloped since at least 1952 until 1956. In 1956, a sandpit appears on the southern portion of the site. In 1963, an oil and gas well appears on the site.

1.6 Findings and Conclusions

AEROSTAR has performed a Phase I ESA in conformance with the scope and limitations of ASTM Standard E 1527-05 of Bonnet Carre Borrow Area, St. Charles Parish, Louisiana, hereafter referred to as the site. Any exceptions to, or deletions from, this practice are described in Section 2 of this report. The Executive Summary serves as a summary of this report and presents the significant findings, conclusions and recommendations. The Executive Summary should not be considered a stand-alone document and must be evaluated in conjunction with the discussions, supporting documentation, and limitations within this ESA report.

This assessment has revealed no evidence of recognized environmental conditions in connection with the site, exception for the following:

- On-site concerns were noted from the seven pressurized pipelines transferring petroleum, butadiene, ethylene, propane, propylene, and butane. The pipelines intersect the site from the

northwest to the southeast. The area of the investigation is located at 30° 02' 32.3" North latitude and 90° 24' 25.5" West longitude, as referenced in the "Norco, Louisiana" USGS topographic quadrangle map, dated 1983.

- On-site concerns were noted from the historical drilling activities in the areas of the plugged and abandoned oil/gas wells located on the central and southeastern sections of the site. The area of the investigation is located at 30° 02' 32.3" North latitude and 90° 24' 25.5" West longitude, as referenced in the "Norco, Louisiana" USGS topographic quadrangle map, dated 1983.
- On-site concerns were noted from the site being used as a floodway to hold sediment deposits of the Mississippi River. Sediment deposits typically contain high metal concentrations, which would constitute concern if the soil is being transported off-site. The area of the investigation is located at 30° 02' 32.3" North latitude and 90° 24' 25.5" West longitude, as referenced in the "Norco, Louisiana" USGS topographic quadrangle map, dated 1983.

1.7 Recommendations

Based on the information reviewed during this investigation, additional assessment is recommended along the existing petroleum pipelines. Furthermore, additional assessment is also recommended in the area of the plugged and abandoned oil/gas wells located in the central and southeastern portion of the site ~~to determine if historical drilling activities have negatively impacted the site~~. The remaining pipelines (butadiene, ethylene, propane, propylene, and butane) are not considered a concern due to their gaseous nature. Soil sampling of the sediment deposits is also recommended if the sediments have the potential to be transported off-site.

The remainder of this report is organized as follows: Section 2 describes the scope of work and limitations for this report; Section 3 presents a site description; Section 4 presents user provided information; Section 5 presents a records review; Section 6 presents a summary of the site reconnaissance; Section 7 presents a summary of interviews; Section 8 presents a summary of AEROSTAR's findings and opinions; Section 9 presents a summary of AEROSTAR's conclusions; Section 10 presents any deviations from the ASTM standard; Section 11 provides additional services conducted as part of this Phase I ESA; Section 12 presents the references; Section 13 presents the signatures of environmental professionals preparing and reviewing the report; and Section 14 presents the qualifications of the environmental professionals participating in this Phase I ESA. Figures are included in Appendix A. The property record information is included in Appendix B. Site photographs are included in Appendix C. A computerized regulatory agency database search is included in Appendix D. Historical research documentation is included in Appendix E. Interview documentation is included in Appendix F. A list of references is included in Appendix G. The qualifications and resumes of the environmental professionals performing this investigation are included in Appendix H.

2.0 INTRODUCTION

2.1 Purpose

The purpose of this Phase I ESA is to identify, to the extent feasible pursuant to ASTM Standard E 1527-05, recognized environmental conditions in connection with the site. The term recognized environmental conditions means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* are not recognized environmental conditions.

Although performance of this investigation in a manner that is generally consistent with the ASTM Standard E 1527-05 Standard is of benefit, it should be recognized that the Standard of “All Appropriate Inquiry” or “good commercial or customary practice” can only be made on a case-by-case basis and is subject to judicial interpretation.

2.2 Scope of Work

This Phase I ESA was conducted in general accordance with ASTM Standard E 1527-05, “Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.” The assessment consisted of four components: records review, site reconnaissance, interviews, and report preparation.

The scope of work does not include an evaluation of asbestos containing building materials, lead based paint, lead in drinking water, regulatory compliance, soil or groundwater sampling and analysis, cultural and historical resources, industrial hygiene, health and safety, ecological resources, indoor air quality, radon, site geotechnics (soils, foundations, site retention, etc.), wetlands, endangered species, or construction materials testing. AEROSTAR can provide these additional services, if requested.

2.2.1 Records Review

Historical Research: Sources such as historical aerial photographs, city directories, and fire insurance maps were reviewed, if reasonably ascertainable, to evaluate the historical usage of the site and surrounding properties. Additionally, a chain-of-title and an environmental lien search were reviewed if provided by the User.

Physical Setting Sources: Various maps, reports, and technical publications were reviewed and observations of site conditions were made to evaluate the hydrogeological/geological conditions associated with the site and surrounding properties. This data can provide pertinent information about the site, including soil classification, surface water flow directions, and possibly, an indication of the local directions of surficial aquifer groundwater flow.

Environmental Public Records Review: Reasonably ascertainable local, state, tribal and federal environmental records and the regulatory database search were reviewed to help assess the likelihood of problems from migrating hazardous substance or petroleum products. Public records identifying these facilities can provide indications of the potential for recognized environmental conditions to be present at the site.

AEROSTAR obtained, reviewed and evaluated reasonably ascertainable information from the Client, User, site owner; local, state, tribal, or federal entities; and the environmental regulatory database search. The conclusions and recommendations of this report are based, in part, on this information. The data reviewed during this investigation appeared to be accurate; however, the provided services do not include the verification of the accuracy or authenticity of information provided by others.

2.2.2 Site Reconnaissance

Onsite Reconnaissance: Visual and physical inspections conducted as part of this investigation included walking the interior of the site in a grid-like manner and walking the site perimeter, where accessible. Additionally, observations of access to and egress from the site were noted, as well as the presence and condition of any onsite buildings, utilities, or other improvements. During the site inspection, an emphasis was placed on observing the operations or conditions exhibiting the potential for recognized environmental conditions. All phases of the site reconnaissance were documented and photographs were taken.

Offsite Reconnaissance: Offsite reconnaissance conducted as part of this investigation included visual and physical inspections of the adjoining properties from the site boundary and from publicly accessible areas. Additionally, a vehicular reconnaissance of the surrounding properties was conducted. During these inspections, an emphasis was placed on observing the operations or conditions exhibiting the potential for recognized environmental conditions. If any sources were identified, the inspector would document the name and location of the facility.

2.2.3 Interviews

AEROSTAR conducted interviews with available individuals familiar with the site, as well as local, state, tribal or federal agency representatives, regarding issues which could have an adverse effect on the environmental status of the subject site.

AEROSTAR depends on the Client, tenant, and other site personnel to provide data pertinent to determining the environmental status of the site, which may or may not exist within public records. The conclusions and recommendations of this report are based, in part, on this information. The data obtained during this investigation appeared to be accurate; however, the provided services do not include the verification of the accuracy or authenticity of information provided by others.

2.2.4 Report Preparation

This report was prepared based upon the information provided by the Client and the User, the observations made during the site reconnaissance, and the information obtained from a review of readily available records. Given the inherent limitations of environmental assessment work, AEROSTAR will not guarantee that any site is free of hazardous or potentially hazardous materials or that latent or undiscovered conditions will not become evident in the future. This report was prepared within the professional conduct of the industry and in accordance with the proposal and the standard terms and conditions presented in the contract. No other warranties, representations or certifications are made.

2.3 Limitations

AEROSTAR has prepared this assessment for the Client and User. AEROSTAR's assessment represents a review of certain information relating to the site that was obtained by methods described above and does not include sampling or other monitoring activities at the property. While AEROSTAR has used reasonable care to avoid reliance upon data and information that is inaccurate, AEROSTAR is not able to

verify the accuracy or completeness of all data and information available during the investigation. Some of the conclusions in this report would be different if the information upon which they are based is determined to be false, inaccurate or incomplete.

AEROSTAR makes no legal representations whatsoever concerning any matter including, but not limited to, ownership of any property or the interpretation of any law. AEROSTAR further disclaims any obligations to update the report for events taking place after the time during which the assessment was conducted.

This report is not a comprehensive site characterization and should not be construed as such. The opinions presented in this report are based upon the findings derived from a site reconnaissance, a limited review of specified regulatory records and historical sources, and comments made by the interviewees.

Phase I ESAs, by their very nature, are limited. AEROSTAR has endeavored to meet what it believes is the applicable standard of care, and, in doing so, is obliged to advise the Client and User of Phase I ESA limitations. AEROSTAR believes that providing information about limitations is essential to help the Client and User identify and thereby manage its risks. Through additional research, these risks can be mitigated - but they cannot be eliminated. AEROSTAR will, upon request, advise the Client and User of the additional research opportunities available, their impact, and their cost.

As noted above, the Phase I ESA was conducted at the referenced site, and this report was prepared for the sole use of the Client and User. This report shall not be relied upon by or transferred to any other party without the express written authorization of AEROSTAR.

Along with all of the limitations set forth in various sections of the ASTM Standard E 1527-05 protocol, the accuracy and completeness of this report is necessarily limited by the following:

- At the request of the client, a chain-of-title was not conducted.
- Physical limitations: While a thorough ground reconnaissance was conducted where possible, heavily vegetated and water covered areas prevented a complete visual inspection of the entire subject site.

2.3.1 Data Gaps

Data gaps are the lack or inability to obtain information required by ASTM Standard E 1527-05 despite good faith efforts to gather such information, such as, but not limited to, the inability to conduct a site visit, inability to conduct interviews, and the inability to establish historical uses of the site or surrounding properties. Not all data gaps are significant, and a data gap will only be discussed in this section if: 1) a data gap occurs during investigation, and 2) the data gap impairs AEROSTAR's ability to meet the objectives of ASTM Standard E 1527-05.

Historical Data Source Failures: Aerial photographs were not available for review prior to 1953. The site was not listed in the city directories for the New Orleans Suburban Area. City directories for the New Orleans Suburban Area were not available for review prior to 1997. Sanborn Fire Insurance maps did not provide coverage for the site vicinity. These failures constitute a historical data failure per ASTM Standard E 1527-05 § 8.3.2.3.

No apparent significant data gaps were noted during the investigation of the site.

2.4 Special Terms and Conditions

This report, and the information contained herein, shall be the sole property of AEROSTAR until payment of any unpaid balance is made in full. The Client and User agree that until payment is made in full, the Client and User shall not have a proprietary interest in this report or the information contained herein. AEROSTAR shall have the absolute right to request the return of any and all copies of this report submitted to other parties, public or private, on behalf of the Client and User in the event of nonpayment of outstanding fees by the Client pursuant to AEROSTAR's proposal.

2.5 User Reliance

This report is intended for the sole use of Client and User. Its contents may not be relied upon by other parties without the explicit written consent of AEROSTAR. This is not a statement of suitability of the property for any use or purpose.

3.0 SITE DESCRIPTION

3.1 Location

The site is located north of Airline Highway, St. Charles Parish, Louisiana, and is shown in Appendix A, Figure 1 (Street Site Location Map). The site is located at 30° 02' 32.3" North latitude and 90° 24' 25.5" West longitude, as referenced in the "Norco, Louisiana" USGS topographic quadrangle maps, dated 1983, presented in Appendix A, Figure 2 (Topographic Site Location Map). Please also refer to the Site Plan presented in Appendix A, Figure 3, and to LTC information of the site in Appendix B.

3.2 Site and Vicinity General Characteristics

At the time of our investigation, the site consisted of 680 acres of undeveloped land located along the north side of Airline Highway. The immediate vicinity surrounding the site is primarily characterized as undeveloped land and industrial properties. Please refer to the Street Site Location Map in Figure 1, the Topographic Site Location Maps in Figure 2, and the Site Plan in Figure 3 for additional details.

3.3 Current Use(s) of the Site

The site is currently unoccupied and undeveloped land. The Bonnet Carre Floodway runs from the southwest to the northeast through the central portion of the site. During the site inspection, there was no evidence of the use, storage, disposal, or generation of hazardous substances at the site. Seven pipelines traverse through the site from the northwest to the southeast. The pipelines are used to transfer petroleum, ethylene, propylene, butadiene, propane, and natural gas. In addition, three plugged and abandoned oil and gas wells are located in the central and southern portions of the site. Each of the plugged and abandoned oil and gas wells are capped off and identified by yellow markings. Overhead electrical lines were observed running from east to west on the southern portion of the site. Observations made during the site reconnaissance are further discussed in Section 6 of this report.

3.4 Structures, Roads, and Other Improvements on the Site

3.4.1 Existing Structures

The site is used as the Bonnet Carre Floodway. No structures were observed during the site visit.

3.4.2 Existing Roads

Access to the site is available from Airline Highway to the south. Also, several trail roads exist throughout the property.

3.4.3 Heating/Cooling System

No heating and cooling systems were observed at the site.

3.4.4 Utilities (including Sewage Disposal)

No utilities were provided to the site; however, numerous pipelines traverse the site on the southern and central sections of the site.

3.4.5 Potable Water

Potable water was not provided to the site.

3.5 Current Uses of the Adjoining Properties

The current uses of the adjoining properties are as follows:

Table 1 Description of Adjoining Parcels		
Direction From Site	Address	Description of Current Use
North	NA	Undeveloped land, followed by the Bonnet Carre Floodway
South	NA	Airline Highway, followed by undeveloped land used as a former sandpit
East	NA	Undeveloped land, followed by a drainage ditch and the Lower Guide Levee
West	NA	Undeveloped land, followed by a drainage ditch and the Upper Guide Levee

Based on the information reviewed as part of this assessment, the current uses of adjoining properties are not suspected of having the potential to negatively impact the site. However, facilities that lie beyond the Lower Guide Levee and are not adjoining properties are suspected of having potential negative impacts to the site. The sites are listed as follows: Big River Food and Fuel, approximately 0.5 miles southeast of the site; River Parish Oil Company, approximately 0.6 miles southeast of the site; Air Liquide, approximately 0.7 miles east of the site; and Shell Chemical Corporation, approximately one mile east and southeast of the site.

4.0 USER PROVIDED INFORMATION

4.1 Title Records

A chain-of-title report for the site was not provided to AEROSTAR by the User or Client.

4.2 Environmental Liens or Activity and Use Limitations

An environmental lien search was ordered through EDR; however, the report was not available for review prior to the completion of this report. A parcel identification number was not available from the client or the St. Charles Tax Assessor's Office to perform the environmental lien; therefore, the environmental lien was ordered based upon map location. An addendum letter will be issued upon AEROSTAR's receipt and review of the environmental lien search. The user, site owner, and site owner representative all stated that they were unaware of any environmental liens or AULs associated with this site.

4.3 Specialized Knowledge

No information was provided to AEROSTAR by the User with respect to any specialized knowledge or experience that may pertain to recognized environmental conditions in connection with the site.

4.4 Commonly Known or Reasonably Ascertainable Information

The User was not aware of any commonly known or reasonably ascertainable information about the site that would indicate the presence of recognized environmental conditions associated with the property.

4.5 Valuation Reduction for Environmental Issues

There is no valuation reduction for environmental issues because the client is the owner of the site.

4.6 Owner, Property Manager, and Occupant Information

The property is owned by the USACE-MVN. AEROSTAR was unable to obtain property record information from the St. Charles Parish Assessor's office. According to Mr. Chris Brantley, Bonnet Carre Operations Manager, the Bonnet Carre Floodway is owned and maintained by the USACE-MVN.

4.7 Reason for Performing Phase I ESA

The Phase I ESA is being performed to comply with industry standards for reasonable due diligence level of environmental risk investigation.

4.8 Other

No other information was obtained from the User.

5.0 RECORDS REVIEW

5.1 Standard Environmental Record Sources

As a part of this assessment, AEROSTAR reviewed information sources to obtain existing information pertaining to a release of hazardous substances or petroleum products on or near the site. AEROSTAR obtained an ASTM regulatory database search through EDR. A copy of the database report is included in Appendix D. AEROSTAR also reviewed other available standard environmental record sources at the LDEQ and LDNR, as needed. Table 2 presents the summary of the regulatory database report.

TABLE 2 Regulatory Database Summary				
Source	Applicable Search Distance	Site	Adjoining Property	Within ASTM search distances
Federal NPL Site	1.0 mile	0	0	0
Federal Delisted NPL	0.5 mile	0	0	0
Federal CERCLIS List	0.5 mile	0	0	0
Federal CERCLIS NFRAP Site List	0.5 mile	0	0	0
Federal RCRA CORRACTS and TSD Facilities	1.0 mile	0	0	0
Federal RCRA Non-CORRACTS TSD Facilities	0.5 mile	0	0	0
Federal RCRA Generators Lists	Site and adjoining properties	0	0	0
Federal IC/EC Registries	Site Only	0	NA	0
Federal ERNS	Site Only	0	NA	0
State- and Tribal-equivalent NPL Sites	1.0 mile	0	0	0
State- and Tribal-equivalent CERCLIS Sites	0.5 mile	0	0	0
State and Tribal Landfill and/or Solid Waste Disposal Site Lists	0.5 mile	0	0	0
State and Tribal LUST Lists	0.5 mile	0	0	0
State and Tribal Registered UST Lists	Site and adjoining properties	0	0	0
State and Tribal IC/EC	Site Only	0	NA	0
State and Tribal voluntary cleanup sites	0.5 mile	0	0	0
State and Tribal Brownfield sites	0.5 mile	0	0	0

The site was identified in the EDR report as a DoD site. No additional environmental agency information was found concerning the subject site through the database search and regulatory file review conducted as part of this investigation. No NPL, delisted NPL, CERCLIS, CERCLIS NFRAP, SWF/LF, VCP, Brownfields sites, CORRACTS TSD, non-CORRACTS TSD, Federal IC/EC registries, ERNS, state- or tribal- equivalent NPL, state- or tribal- equivalent UST facilities, state- or tribal- equivalent LUST facilities, state- or tribal-equivalent CERCLIS facilities were identified within the ASTM-specified search distances for the subject site.

In addition to reviewing the database report, AEROSTAR performed reconnaissance of the site vicinity to identify any sites not mapped by EDR due to inadequate or inaccurate address information and to look for unregistered facilities. According to a review of the LDNR SONRIS database, three plugged and abandoned oil and gas wells are located in the central and southern portion of the site. These well sites are summarized below.

Well serial number 99179 is located approximately 30° 1' 31.15" North latitude and 90° 25' 1.42" West longitude on the southeastern corner of the site. According to the LDNR database, the well was installed by The California Company in October 1963 to investigate the potential for oil and gas. The hole was determined to be "dry," and was plugged and abandoned in November 1963. The well was plugged with a 10.75-inch casing of cement to a depth of approximately 3,000 feet below land surface and was welded shut at the surface. Based on the information gathered, the historical drilling activities associated with this former well are considered to be a recognized environmental condition in connection with the site.

Well serial number 101073 is located approximately 30° 2' 35.19" North latitude and 90° 24' 14.97" West longitude near the southern edge of the site. According to the LDNR database, the well was installed by The California Company in February 1964 to investigate the potential for oil and gas. The hole was determined to be "dry," and was plugged and abandoned in March 1964. The well was plugged with a 16-inch casing of cement from a depth of 11,800 to 12,000 feet below land surface and with a 10.75-inch casing of cement to a depth of approximately 3,000 feet below land surface and was welded shut at the surface. Based on the information gathered, the historical drilling activities associated with this former well are considered to be a recognized environmental condition in connection with the site.

Well serial number 144014 is located approximately 30° 1' 57.14" North latitude and 90° 25' 0.73" West longitude on the central portion of the site. According to the LDNR database, the well was installed by Macpet in March 1974 to investigate the potential for oil and gas. The hole was determined to be "dry," and was plugged and abandoned in April 1974. The well was plugged with a 10.75-inch casing of cement to a depth of approximately 3,000 feet below land surface and was welded shut at the surface. Based on the information gathered, the historical drilling activities associated with this former well are considered to be a recognized environmental condition in connection with the site.

Big River Food and Fuel gas station, formerly Holmes Food Mart, located at 15723 Airline Highway, was observed within one-half mile southeast of the subject site. Facility information was requested by AEROSTAR from EDR regarding environmental concerns associated with this property. According to EDR, this UST facility had three 6,000-gallon gasoline USTs that were installed in May 1978 and removed in July 1997; and four 1,000-gallon diesel USTs that were installed in January 1980 and removed in July 1997. The facility currently has four 5,000-gallon diesel USTs that were installed in January 1980 and are currently in service; and two 10,000-gallon gasoline USTs that were installed in February 1997 and are currently in service. A review of LDEQ records indicated that the facility is in compliance and that there have been no incidents reported for this facility. Based on the information gathered, no off-site concerns were noted for this facility at this time.

River Parish Oil Company, located at 15731 Airline Highway, was observed approximately 0.6 miles southeast of the subject site. During the site inspection, numerous 55-gallon drums containing diesel fuel were observed stacked on a concrete surface within the facility fence. Eight 1,000-gallon ASTs were also observed at the facility. According to LDEQ records, this facility (AI# 15956) had one 8,000-gallon diesel UST that was installed in May 1978 and removed in August 1995. No incidents have been reported for this facility. This facility is participating in the Louisiana Motor UST Trust Fund Program. Any potential impacts from this UST facility will be covered under the program. Based on the information gathered, no off-site concerns were noted for this facility at this time.

Air Liquide, located at 211 and 336 Cedar Drive in Norco, was identified in the Orphan Summary as a UST/RCRA/NPDES/FINDS/ICIS facility and was observed approximately 0.7 miles east of the subject site. Facility information was requested by AEROSTAR from EDR regarding environmental concerns associated with this property. According to EDR, this facility (AI# 3483) had one 8,000-gallon diesel UST that was installed in May 1978 and removed in August 1995. No incidents have been reported for this facility. Based on a review of EPA and LDEQ records, a final compliance order, dated September 1992, was issued to the facility for five RCRA-SQG violations for general, recordkeeping, and oversight requirements. The facility achieved compliance in May 1993. According to EDR, this facility is also listed in the FINDS database as a TRI facility. Based on the information gathered and the distance of this facility from the site, no off-site concerns were noted for this facility at this time.

Shell Chemical Company, located on the north and south side of Airline Highway, was identified in the Orphan Summary as a UST/FTTS/Hist FTTS facility and was observed approximately one mile east and southeast of the subject site. According to the EDR report, this facility had one 1,080-gallon diesel UST installed in May 1979 and removed in November 1995. A review of EPA, USCG, and LDEQ records indicate no reported incidents/violations for this facility. No additional information was available. Based on the information gathered and the distance of this facility from the site, no off-site concerns were noted for this facility at this time.

No additional petroleum fueling facilities were observed within a half mile of the site during field reconnaissance performed by AEROSTAR.

5.2 Additional Environmental Record Sources

No additional environmental record sources were reviewed as part of this assessment.

5.3 Physical Setting Sources

The "Norco, Louisiana" USGS topographic quadrangle map, dated 1983; and regulatory files available regarding properties of environmental concern in the site vicinity were reviewed as sources for obtaining information regarding the physical setting of the site and surrounding vicinity.

5.3.1 Regional Geology

St. Charles Parish is located in southeastern Louisiana and has a total area of 286,691 acres, of which approximately 93,389 acres are large water areas. St. Charles Parish lies entirely within the Mississippi River Delta. The natural levees of the Mississippi River and its distributaries are dominated by firm, loamy and clayey soils. These soils make up about twenty percent of the total land area of the parish and are developed mainly for urban and industrial use and for agricultural and woodland use. An extensive system of manmade levees protects these soils from flooding. The remaining 80 percent of the land area of the parish consists of ponded and frequently flooded, mucky and clayey soils in marshes and swamps. Elevation ranges from about 15 feet above sea level on the natural levees along the Mississippi River to about 5 feet below sea level in former marshes and swamps that have been drained.

5.3.2 Topography

The area of the investigation is located at 30° 02' 32.3" North latitude and 90° 24' 25.5" West longitude, as referenced in the "Norco, Louisiana" USGS topographic quadrangle map, dated 1983. Based on a review of the topographic map, the subject site appears to have little topographic relief. According to the topographic map, the elevation at the subject site is approximately 0 feet above the NGVD of 1929.

Surface water bodies were identified on the topographic map in the vicinity of the subject site. The Bonnet Carre Spillway borders the subject site to the north. Beyond the Bonnet Carre Spillway, Lake Ponchartrain is located approximately 550 feet to the northeast of the site. The Mississippi River is located approximately 2,500 feet to the south of the subject site. Based upon a review of the topographic map, regional shallow groundwater flow in the immediate vicinity of the subject site appears to be towards the north. Actual groundwater flow in the vicinity of the subject property may be locally influenced by seasonal rainfall, proximity to surface bodies of water (lakes, rivers, canals), tidal fluctuations, surface topography, underground structures, soil and bedrock geology, production wells and other factors beyond the scope of this study.

5.3.3 Soils/Geology

The United States Department of Agriculture Soil Conservation Service *Soil Survey of St. Charles Parish*, Map Numbers 1, 2, 4, and 5, were reviewed to identify native soil characteristics in the vicinity of the subject site. According to the survey, the soils in the subject site area are classified as Convent and Commerce soils.

Convent soils are poorly drained organic soils that are in narrow bands between the Mississippi River and its protection levee and within the Bonnet Carre Spillway. Slope ranges from zero to three percent. Typically, the Convent soil has a brown, mildly alkaline fine sandy loam, very fine sandy loam, or silt loam surface about six inches thick. The underlying material is grayish brown and gray mottled, moderately alkaline silt loam to a depth of 60 inches. This soil has low water capacity, low permeability in the surface layer and very slow in the underlying material, and slow surface run off. A seasonal high water table fluctuates between a depth of 1½ to 4 feet during the winter and spring. This soil has low shrink-swell potential.

Commerce soils are poorly drained organic soils that are in lower positions than the Convent soil that is on slightly higher, convex ridges. Slope ranges from zero to three percent. Typically, the surface layer is a dark brown, moderately alkaline, silt loam or very fine sandy loam about 4 inches thick. The subsoil to a depth of about 32 inches is grayish brown, mottled, moderately alkaline silt loam. The underlying material to a depth of about 60 inches is grayish brown, mottled, moderately alkaline silt loam. A seasonal high water table fluctuates between depths of about 1½ to 4 feet. Permeability is moderately slow. Water runs off the surface slowly. The soil has a moderate shrink-swell potential.

5.3.4 Hydrogeology

Groundwater is available in four major fresh water aquifers in St. Charles Parish. The major aquifers are the Gramercy 200-foot sand aquifer, the Norco 400-foot sand aquifer, the Gonzales-New Orleans 700-foot sand aquifer, and the 1,200-foot sand aquifer. The Gramercy and Norco aquifers are too brackish for municipal or industrial use. Some industrial use is made of the Gonzales aquifer. The 1,200-foot sand aquifer contains too much salt for most uses. The hydrologic regime of St. Charles Parish consists of the movement of freshwater and salt water masses through the region as a result of the interaction among the Mississippi River discharge, regional precipitation, winds, and tides. The current hydrologic regime is affected by both natural and manmade factors. The basic natural hydrologic system is governed by the pattern of major abandoned distributary channels of the Mississippi River delta complex and interdistributary basin channels, which serve to drain swamps and marshes into the estuarine lakes, bays, and sounds.

5.4 Historical Use Information on the Site

Based on the review of aerial photographs, historical topographic maps, and interviews, the site appears to have been undeveloped land since at least 1952 and 1956. In 1956, a sandpit was observed on the site. In 1963, an oil and gas well appears on the site.

5.5 Historical Use of Adjoining Properties

Based on the review of aerial photographs, historical topographic maps and interviews, the northern, southern, eastern, and western adjoining properties appear to have been undeveloped since at least 1952 until 1956. In 1967, a campground and sandpit appear on the adjoining property to the east and an oil well appears on the adjoining property to the west. The Upper and Lower Guide Levee appear to have been developed since at least 1952. None of the past uses of the adjoining properties appear to have represented an environmental concern.

5.6 Standard Historical Sources Reviewed

5.6.1 Aerial Photograph Review

To evaluate the previous land uses of the property and surrounding area, a series of aerial photographs was reviewed. The aerial photographs provide a progressive overview of parcels pertaining to this assessment.

AEROSTAR personnel reviewed aerial photographs from 1953, 1971, 1980, 1998, 2001, and 2005 provided by the *Soil Survey of St. Charles Parish*, NRCS, LA Coast website, and the TerraServer website. Color copies of the 1953, 1971, 1980, 1998, 2001, and 2005 aerial photographs are provided in Appendix E. Descriptions of AEROSTAR's observations are outlined in Table 3.

TABLE 3			
Summary of Aerial Photograph Observations			
Source	Photograph Date	Photograph Scale	Remarks
NRCS	1953	NA	Site: The site appears to be undeveloped land with a pipeline in the center of the property in a NW to SE direction North: Undeveloped land, followed by the Bonnet Carre Spillway South: A road followed by undeveloped land East: Undeveloped land, followed by a drainage ditch and the Lower Guide Levee; Beyond the levee, Shell Chemical is apparent on the south side of Airline Highway West: Undeveloped land, followed by a drainage ditch and the Upper Guide Levee

TABLE 3			
Summary of Aerial Photograph Observations			
Source	Photograph Date	Photograph Scale	Remarks
NRCS	1971	NA	Site: A sandpit is visible on the southern portion of the site North: No change South: Small structures appear on adjoining property East: Air Liquide and Shell Chemical appear on the north side of Airline Highway West: No change
NRCS	1980	NA	Site: A sandpit is visible in the central portion of the site North: Not covered South: Sandpits visible East: No change West: No change
TerraServer Website	1998	NA	Site: No change North: No change South: No change East: No change West: No change
LA Coast Website	2001	NA	Site: No change North: No change South: No change East: No change West: No change
LA Coast Website	2005	NA	Site: No change North: No change South: No change East: No change West: No change

5.6.2 Property Ownership Records

A chain-of-title was not provided to AEROSTAR by the Client or User. According to Mr. Chris Brantley, Bonnet Carre Operations Manager, the current property owner is the USACE-MVN. No PRC is readily available from the St. Charles Tax Assessor's Office.

5.6.3 City Directory Review

Historical city directories for the New Orleans Suburban Area prior to 1997 were not available for review. The site was not listed in the city directories reviewed. Holmes Food Mart has been listed in the city directories since at least 1997. The site vicinity was listed as primarily commercial properties since at least 1997.

5.6.4 Fire Insurance Map Review

Sanborn Fire Insurance Maps did not provide coverage for the site and vicinity.

5.6.5 Other Historical Sources

Topographic Maps

Historical topographic maps from 1952, 1967, 1972, 1979, 1989, 1992, and 1998 of the site area were provided by EDR. Historical topographic maps are included in Appendix E. Descriptions of AEROSTAR's observations are outlined in Table 4.

TABLE 4			
Summary of Historical Topographic Map Observations			
Source	Map Date	Map Scale	Remarks
EDR	1952	1: 24,000	Site: Site is the Bonnet Carre Floodway with a pipeline in the center of the property in a NW to SE direction North: Undeveloped land followed by the Bonnet Carre Spillway South: Airline Highway followed by undeveloped land East: Undeveloped land followed by a drainage area and the Lower Guide Levee West: Undeveloped land followed by a drainage area and the Upper Guide Levee
EDR	1967	1:24,000	Site: A sandpit and two ponds are located on the southern portion of the site North: No change South: No change East: A campground and sandpits are visible to the east of the site. A sewage disposal facility is located beyond the Lower Guide Levee West: An oil well is visible to the west of the site
EDR	1972	1:24,000	Site: Another pit appears in the center of the site, north of the pipeline North: No change South: No change East: No change West: No change
EDR	1979	1:24,000	Site: The sandpit in the center of the property appears to be larger North: No change South: No change East: No change West: No change

TABLE 4
Summary of Historical Topographic Map Observations

EDR	1989	1:24,000	Site: The sandpits located in the center and on the southern portion of the property appear to be larger North: No change South: No change East: No change West: No change
EDR	1992	1:24,000	Site: No change North: No change South: No change East: Boat ramp is visible West: Oil well no longer visible
EDR	1998	1:24,000	Site: No change North: No change South: No change East: No change West: No change

6.0 SITE RECONNAISSANCE

6.1 Methodology and Limiting Conditions

Visual and physical inspections conducted as part of this investigation included walking the interior of the site and walking the site perimeter, where accessible. Additionally, observations of access to and egress from the site were noted, as well as the presence and condition of any on-site buildings, utilities, or other improvements. This visual and physical inspection of the property focused primarily on its surface features. Property use and significant features are indicated on the Site Plan which is included as Figure 3 in Appendix A. Site photographs are included in Appendix C.

While a thorough ground reconnaissance was conducted where possible, heavily vegetated areas prevented a complete visual inspection of the entire subject site.

6.2 General Site Setting

6.2.1 Current Use(s) of the Site

The site is used as the Bonnet Carre Floodway, which is located along the north side of Airline Highway. The site is flooded approximately once every decade from the Bonnet Carre Spillway. Seven pressurized pipelines traverse the site from the northwest to southeast in the central and southern portion of the site. Additionally, three former oil wells are located in the central and southeastern portions of the site. Each of the former oil and gas wells have reportedly been plugged and capped off.

6.2.2 Past Use(s) of the Site

No indication of the site's previous use was observed during the site reconnaissance, except for the following: the site is used as a holding area for sediment deposits from the Mississippi River; seven pipelines located on the central and southern portion of the property; and three former oil and gas wells located in the central and southeastern portion of the property.

6.2.3 Current Uses of Adjoining Properties

The adjoining properties are currently used as the Bonnet Carre Floodway. During the site inspection, the southern area of the canal located on the adjoining property to the east appears to be used as a boat dock for municipal traffic.

6.2.4 Past Uses of Adjoining Properties

No indication of the adjoining properties' past uses was observed during the site reconnaissance.

6.2.5 Current or Past Uses in the Surrounding Area

The surrounding area is currently used as a floodway with the Upper and Lower Guide Levees to the west and east, respectively. No indication of the surrounding area's past use was observed during the site reconnaissance except for the seven pipelines that intersect the Bonnet Carre Floodway.

6.2.6 Geologic, Hydrogeologic, Hydrologic, and Topographic Conditions

The site appears to slope to the north. No geologic, hydrogeologic or hydrologic conditions were observed during the site reconnaissance.

6.2.7 General Description of Structures

There were no structures observed during the site inspection.

6.2.8 Roads

Access to the site is available from Airline Highway to the south. Several trail roads exist throughout the site.

6.2.9 Potable Water Supplies

The use of potable water was not observed at the site.

6.2.10 Sewage Disposal System

The use of sewage disposal systems was not observed at the site.

6.3 Exterior Observations

6.3.1 Hazardous Substances and Petroleum Products

No evidence of the use, storage, or disposal of hazardous substances was observed during the site inspection.

6.3.2 Storage Tanks

No evidence of the presence of USTs were observed during the site inspection.

6.3.3 Odors

No odors were noted during the site inspection.

6.3.4 Pools of Liquids

No pools of liquids were observed during the site inspection.

6.3.5 Drums

No drums were observed during the site inspection.

6.3.6 Unidentified Substance Containers

No unidentified substance containers were observed during the site inspection.

6.3.7 PCBs

No PCB containing equipment was observed during the site inspection. However, transmission lines were observed running east to west on the southern portion of the site.

6.3.8 Pits, Ponds or Lagoons

The subject site is the Bonnet Carre Floodway. Drainage areas are located to the east and west of the subject site. Standing water exists throughout the site, as the site is used as a floodway for the Bonnet Carre Spillway.

6.3.9 Stained Soil or Pavement

No stained soil or pavement was observed during the site inspection.

6.3.10 Stressed Vegetation

No stressed vegetation was observed during the site inspection.

6.3.11 Solid Waste

No evidence of solid waste was observed during the site inspection. One gas-powered blower was observed on the southern portion of the site. No staining or evidence of leaks or spills was observed on the ground surface around the blower.

6.3.12 Waste Water

No waste water discharges to or from the site were observed during the site inspection.

6.3.13 Wells

No potable, irrigation, or industrial wells were observed during the site inspection.

6.3.14 Septic Systems

No septic systems were observed during the site inspection.

6.4 Interior Observations

6.4.1 Hazardous Substances and Petroleum Products

No structures were observed on the site during the site inspection.

6.4.2 Storage Tanks

No structures were observed on the site during the site inspection.

6.4.3 Odors

No structures were observed on the site during the site inspection.

6.4.4 Pools of Liquid

No structures were observed on the site during the site inspection.

6.4.5 Drums

No structures were observed on the site during the site inspection.

6.4.6 Unidentified Substance Containers

No structures were observed on the site during the site inspection.

6.4.7 PCBs

No structures were observed on the site during the site inspection.

6.4.8 Heating and Cooling

No structures were observed on the site during the site inspection.

6.4.9 Stains or Corrosion

No structures were observed on the site during the site inspection.

6.4.10 Drains and Sumps

No structures were observed on the site during the site inspection.

7.0 INTERVIEWS

Reasonable attempts were made to interview the available key site manager and occupants. AEROSTAR also conducted interviews with other individuals familiar with the site, as well as local, state, tribal or federal agency representatives, where available, regarding issues which could have an adverse effect on the environmental status of the site. Copies of interview documentation are included as Appendix F.

7.1 Interview with Site Owner

AEROSTAR interviewed Mr. Chris Brantley, Bonnet Carre Operations Manager, regarding site activities and historical use information. According to Mr. Brantley, the USACE-MVN has owned the site since at least 1938. The site was a cypress swamp at the time of the USACE-MVN's purchase of the property. Mr. Brantley stated that USACE-MVN made gradual improvements to the land including clearing away sand deposits/overburden and goat grazing to keep vegetation down. Clearing of the sand deposits included excavating the sediment deposited by the Mississippi River and hauling/trucking it off-site. The last excavation activities at the Bonnet Carre Floodway occurred in 1997. Approximately eight million cubic yards of sediment deposits were removed from the site.

Mr. Brantley said that since USACE-MVN's ownership, the levees were constructed and the spillway and floodway were developed to help ease water flow in the area. Mr. Brantley is aware of the oil and gas wells and pipelines that are on site. Mr. Brantley does not have any knowledge of any environmental concerns associated with them. Mr. Brantley is not aware of any issues of environmental concern or any environmental liens or AULs at the site. Mr. Brantley did, however, indicate that USACE-MVN personnel and contractors working with the Bonnet Carre Spillway have guidance manuals that dictate how work is performed on the spillway and levees.

7.2 Interview with Site Manager

Please reference Section 7.1.

7.3 Interviews with Occupants

Please reference Section 7.1.

7.4 Interviews with Local Government Officials

Due to the information collected from the interviews and other historical sources, AEROSTAR did not interview any local government officials to determine the historical uses of the site.

7.5 Interviews with Others

AEROSTAR contacted Mr. Mike Brown, USACE-MVN project manager, regarding site activities and historical use information. According to Mr. Brown, USACE-MVN is investigating the site as a potential borrow pit area and requires a Phase I ESA to comply with industry standards of due diligence. Mr. Brown stated that the USACE-MVN does not have chain-of-title records and are not requesting one as part of this investigation. He is not aware of any issues of environmental concern or of any environmental liens or AULs at the site.

AEROSTAR contacted Mr. Dean Arnold, Bonnet Carre Spillway staff, regarding site ERGO assessments and site activities at the Bonnet Carre Spillway. According to Mr. Arnold, the ERGO assessments are performed only on the facilities located near the spillway and not on the potential borrow area or

floodway. Mr. Arnold indicated that there is one 500-gallon diesel AST located approximately 200 yards east of the Lower Guide Levee. He has no knowledge of any environmental concerns or of any environmental liens or AULs at the site.

AEROSTAR contacted Ms. Linda Bongiovanni, USACE-MVN real estate department, regarding information concerning the pipelines that intersect the site. According to Ms. Bongiovanni, USACE-MVN does keep pipeline records, and she would have to review their files to obtain the information requested. Ms. Bongiovanni had not been able to provide AEROSTAR with the pipeline information at the time this report was generated.

8.0 FINDINGS AND OPINIONS

8.1 Known or Suspect Recognized Environmental Conditions

No on-site or off-site concerns are noted for the site, except for the following:

- On-site concerns were noted from the seven pressurized pipelines traversing the site from the northwest to southeast.

8.2 Historical Recognized Environmental Conditions

No historical recognized environmental conditions were noted at the site, except for the following:

- On-site concerns were noted from the seven pressurized pipelines transferring petroleum, butadiene, ethylene, propane, propylene, and butane. The pipelines intersect the site from the northwest to the southeast. The area of the investigation is located at 30° 02' 32.3" North latitude and 90° 24' 25.5" West longitude, as referenced in the "Norco, Louisiana" USGS topographic quadrangle map, dated 1983.
- On-site concerns were noted from the historical drilling activities in the areas of the plugged and abandoned oil/gas wells located on the central and southeastern sections of the site. The area of the investigation is located at 30° 02' 32.3" North latitude and 90° 24' 25.5" West longitude, as referenced in the "Norco, Louisiana" USGS topographic quadrangle map, dated 1983.
- On-site concerns were noted from the site being used as a floodway to hold sediment deposits of the Mississippi River. Sediment deposits typically contain high metal concentrations, which would constitute concern if the soil is being transported off-site. The area of the investigation is located at 30° 02' 32.3" North latitude and 90° 24' 25.5" West longitude, as referenced in the "Norco, Louisiana" USGS topographic quadrangle map, dated 1983.

8.3 De Minimis Conditions

No evidence of *de minimis* conditions are noted for the site.

9.0 CONCLUSIONS

AEROSTAR has performed a Phase I ESA in conformance with the scope and limitations of ASTM Standard E 1527-05 of 680 acres of undeveloped land located north of Airline Highway, St. Charles Parish, Louisiana. Any exceptions to, or deletions from, this practice are described in Section 2 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the site, exception for the following:

- On-site concerns were noted from the seven pressurized pipelines transferring petroleum, butadiene, ethylene, propane, propylene, and butane. The pipelines intersect the site from the northwest to the southeast. The area of the investigation is located at 30° 02' 32.3" North latitude and 90° 24' 25.5" West longitude, as referenced in the "Norco, Louisiana" USGS topographic quadrangle map, dated 1983.
- On-site concerns were noted from the historical drilling activities in the areas of the plugged and abandoned oil/gas wells located on the central and southeastern sections of the site. The area of the investigation is located at 30° 02' 32.3" North latitude and 90° 24' 25.5" West longitude, as referenced in the "Norco, Louisiana" USGS topographic quadrangle map, dated 1983.
- On-site concerns were noted from the site being used as a floodway to hold sediment deposits of the Mississippi River. Sediment deposits typically contain high metal concentrations, which would constitute concern if the soil is being transported off-site. The area of the investigation is located at 30° 02' 32.3" North latitude and 90° 24' 25.5" West longitude, as referenced in the "Norco, Louisiana" USGS topographic quadrangle map, dated 1983.

10.0 DEVIATIONS

AEROSTAR prepared this Phase I ESA in accordance with ASTM Standard E 1527-05.

11.0 ADDITIONAL SERVICES

Under the terms of the agreement between Client and AEROSTAR, no additional services were provided in association with the Phase I ESA. There may be environmental issues or conditions at a site that the Client may wish to assess in connection with commercial real estate that are outside the scope of this practice (the non-scope considerations). No implication is intended as to the relative importance of inquiry into such non-scope considerations, and this list of non-scope considerations is not intended to be all inclusive: asbestos-containing materials; radon; lead-based paint; lead in drinking water; wetlands; regulatory compliance; cultural and historical resources; industrial hygiene; health and safety; ecological resources; endangered species; indoor air quality; and high voltage power lines.

12.0 REFERENCES

References reviewed during the Phase I ESA are documented in Appendix G.

13.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

This is to certify the Phase I ESA Report of 680 acres of undeveloped land located north of Airline Highway in Norco, St. Charles Parish, Louisiana, has been examined by the undersigned.

DATE: _____

SIGNATURE: _____

Emilie Wien
Project Geologist

DATE: _____

SIGNATURE: _____

Neil Hornick, P.G., CHMM
Senior Project Manager

14.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

This assessment was completed by Emilie Wien, Project Geologist, and reviewed by Neil Hornick, P.G., CHMM, Senior Project Manager, both employees of AEROSTAR. We declare that, to the best of our professional knowledge, we meet the definition of environmental professional as defined in § 312.10 of 40 CFR 312. We have the specific qualifications based on education, training, and experience to assess the property of a nature, history, and setting of the site. We have developed and performed the all appropriate inquiries in conformance with the standards set forth on 40 CFR Part 312. Qualifications of personnel participating in this assessment are provided in Appendix H.

APPENDICES

APPENDIX A

FIGURES

APPENDIX B

PROPERTY RECORD INFORMATION

APPENDIX C
SITE PHOTOGRAPHS

APPENDIX D

REGULATORY DATABASE REPORT

APPENDIX E

HISTORICAL REFERENCE DOCUMENTATION

APPENDIX F

INTERVIEW DOCUMENTATION

**LIST OF CONTACTS INTERVIEWED
PHASE I ENVIRONMENTAL SITE ASSESSMENT**

<u>Name</u>	<u>Title</u>	<u>Affiliation</u>	<u>Topics Discussed</u>
Mr. Chris Brantley	Operations Manager	Bonnet Carre Spillway	Historical and current uses of the site; environmental issues
Mr. Dean Arnold	Personnel	Bonnet Carre Spillway	Environmental concerns of the site
Mr. Mike Brown	Project Manager	USACE-MVN	Historical and current uses of the site and user-provided information
Ms. Linda Bongiovanni	Real Estate Dept.	USACE-MVN	Pipeline ownership and locations

APPENDIX G

REFERENCES

REFERENCES

Interviews: Mr. Chris Brantley, Bonnet Carre Spillway Operations Manager
Mr. Dean Arnold, Bonnet Carre Spillway Personnel
Mr. Mike Brown, USACE-MVN Project Manager
Ms. Linda Bongiovanni, USACE-MVN Real Estate Dept

The EDR Radius Map Report, EDR, June 19, 2007.

USGS Topographic Map of "Norco, Louisiana," dated 1983.

US Department of Agriculture Soil Conservation Service, *Soil Survey of St. Charles Parish*, dated 1987.

Websites: EPA <http://www.epa.gov/>
Louisiana Tax Commission <http://www.latax.state.la.us/>
LA Coast <http://www.lacoast.gov/>
LDEQ EDMS <https://edms.deq.louisiana.gov/app/security/logon.aspx>
LDNR Sources <http://dnr.louisiana.gov/>
Terra Server <http://www.terra-server.com/>

APPENDIX H

QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS