D R A F T R E P O R T

Cultural Resources Assessment

Rohm and Haas Texas, Incorporated

A Wholly Owned Subsidiary of the Dow Chemical Company

Boiler House Unit Installation Project
Deer Park, Harris County, Texas

Prepared for:

Rohm and Haas Texas, Incorporated
1900 Tidal Road, Deer Park, TX 77536

AND

U.S. Environmental Protection Agency - Region 6
1445 Ross Avenue, Dallas, TX 75202

Prepared by:

URS Corporation
7389 Florida Blvd., Suite 300
Baton Rouge, Louisiana 70806
(225) 922-5700

August 2013

URS

D R A F T R E P O R T

CULTURAL RESOURCES ASSESSMENT

ROHM AND HAAS TEXAS, INCORPORATED

BOILER HOUSE UNIT INSTALLATION PROJECT

DEER PARK, HARRIS COUNTY, TEXAS

Prepared for: Rohm and Haas Texas, Incorporated
1900 Tidal Road, Deer Park, TX 77536

AND

Environmental Protection Agency (U.S. EPA Region 6)
1445 Ross Avenue, Dallas, TX 75202

Prepared by: Robert Lackowicz and Lauren Poche

Rob Lackowicz (M.A.)
Principal Investigator
URS Corporation – Baton Rouge
Tel: 225-922-5700

August 2013

Project No. 41569414

URS

URS Corporation
7389 Florida Blvd., Suite 300
Baton Rouge, Louisiana 70806
225/922-5700

Executive Summary

URS Corporation conducted a Section 106 cultural resources review of a proposed project at the existing Rohm and Haas chemical facility in Deer Park, Texts. The facility is located approximately 0.4 miles northwest of the intersection of State Highway 134 and State Highway 225 in Deer Park, Harris County, Texas. Rohm and Haas proposes to install two new gas-fired steam boilers and the associated piping and equipment in the South Plant portion of its facility. The project is a Section 106 undertaking as it requires federal review through issuance of a permit from the Environmental Protection Agency.

The purpose of this review was to identify the potential for the undertaking to impact cultural resources protected under the National Historic Preservation Act or state statutes, such as historic and prehistoric archeological sites or cemeteries that might be located within the boundaries of the proposed undertaking. The project area is located within an active chemical processing plant comprised of existing industrial buildings and infrastructure. The Area of Potential Effects (APE) is limited to construction activities at lands disturbed by previous clearing and construction within the facility. No archaeological sites, historic structures, or National Historic Landmarks are recorded within one half mile of the proposed undertaking.

Given the lack of recorded historic properties and the extensive level of previous industrial development that covers the proposed construction area, conducting subsurface investigations within the APE is not warranted. In conjunction with existing geologic and soil conditions, the review finds that there is negligible potential for the APE to contain significant archeological resources. Based on these data, URS recommends a finding of No Historic Properties Affected be applied to this undertaking.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

1.0 Project Background

Rohm and Haas Texas, Incorporated (Rohm and Haas), a wholly owned subsidiary of DOW Chemical Company, owns the Deer Park Operations chemical manufacturing facility (DPO Facility) in Deer Park, Harris County, Texas (Figures 1 and 2). The facility produces acrylic acid, methacrylic acid, methyl methacrylate, alkyl amines, and sulfuric acid. Rohm and Haas proposes to install two new gas-fired steam boilers and the associated piping and equipment in the South Plant portion of the facility. The proposed project will require a prevention of significant deterioration permit issued by the U.S. Environmental Protection Agency for greenhouse gas emissions. It is therefore a Section 106 undertaking as defined under the National Historic Preservation Act (NHPA). Rohm and Haas have retained the services of URS Corporation (URS) to prepare this cultural resource study to evaluate the potential effect of the undertaking on historic properties, as required for Section 106 undertakings.

1.1 Project Location

The proposed boilers will be located entirely within the South Plant region of the DPO Site property, approximately 0.4 miles northwest of the intersection of State Highway 134 and State Highway 225 and 2.8 miles southeast of the intersection at East Sam Houston Tollway and State Highway 225 in Deer Park, Harris County, Texas. The facility is located on the La Porte United States Geological Survey (USGS) Quad, at 29.72897° north latitude and -95.09914° west longitude. The new boilers will be constructed in the existing facility's Boiler House Unit (Figure 3). The Boiler House Unit is located on the western property boundary adjacent to a landfill owned and operated by Clean Harbor Waste Management.

1.2 Project Purpose and Operations

The project will maintain a reliable steam supply as well as efficiently burn absorber off-gas from the North Area Unit, located just west of the Boiler House Unit (Figure 3). The construction of additional boilers and associated process equipment will allow equipment maintenance to be performed without sacrificing production. The two boilers will produce steam by using natural gas or a combination of natural gas and absorber off-gas from the North Area Unit. Through this process, each boiler will produce approximately 600 pounds of steam for manufacturing facilities within the DPO Site. The combusted gases from the boilers will be fed through a selective catalytic reduction system to reduce nitrogen oxide emissions. The gas streams will then travel through an economizer that uses heat from the combusted gases to

increase the temperature of the water from the de-aerator; which is sent to the boiler as feed water. The gas streams will be emitted from boiler stacks. A detailed list of the necessary components for this process is provided below.

The Boiler House Unit installation project will include installation of the following equipment:

- Two new gas-fired steam boilers;
- One economizer per boiler;
- One ammonia injection grid per boiler;
- One SCR system per boiler;
- One forced draft fan per boiler;
- One emissions stack per boiler;
- One de-aerator;
- Three boiler feed water pumps;
- Two fuel knock out drums;
- A back-up instrument air system;
- A new potable water system;
- A condensate blowdown system;
- A new control building; and
- A new motor control center/substation.

Existing utilities including plant air, nitrogen, process water, demineralized water, potable water, and cooling water will support the project as needed.

1.3 Purpose of Current Study

USEPA Region 6 has determined that the project is subject to the provisions of Section 106 of the National Historic Preservation Act (NHPA) of 1966 (as amended), and defined in 36 CFR Part 800. The intent of Section 106 is for federal agencies to take into account adverse effects on any historic properties situated within the direct or indirect APE of the proposed undertaking, and to afford the Advisory Council on Historic Preservation (ACHP), State Historic Preservation Officers (SHPOs), tribal groups, and any other interested parties an opportunity to comment on the proposed action within a reasonable period. URS conducted this cultural resources assessment for the proposed DPO undertaking in order to assess its potential to adversely affect historic properties, as required under the Section 106 regulations.

A historic property is defined as any district, archeological site, building, structure, or object that is either listed, or eligible for listing, in the National Register of Historic Places (NRHP). Under this regulatory definition, other cultural resources may be present within a project's Area of Potential Effects (APE) but are not be considered historic properties if they do not meet the eligibility requirements for listing in the NRHP. To be considered eligible for the NRHP, a property must meet one of the four following criteria (36 CFR 60.4): (a) they are associated with events that have made a significant contribution to the broad patterns of our history; (b) they are associated with the lives of persons significant in our past; (c) they embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or (d) they have yielded, or may be likely to yield, information important in prehistory or history.

1.4 Area of Potential Effects

The project's direct and indirect Area of Potential Effects (APE) for Section 106 of the NHPA are defined as follows:

- The direct APE is limited to the two areas where construction activities will occur:
    - **Boiler Site** – The boilers will be constructed on an approximate 0.93-acre block within the DPO facility. The project includes the installation of two new boilers (#5 and #6) and associated appurtenances in the locations shown in Figure 3. In addition, an associated control room will be constructed on an approximate 0.14-acre area northwest adjacent to the proposed boilers (Figure 3). All construction will occur within the confines of the existing facility, within areas previously disturbed by clearing, grading and construction.
    - **Construction Laydown Area** – Rohm and Haas will utilize a temporary laydown area, size yet to be defined, in close proximity to the boiler construction area during construction of the proposed project. The location will also occur be limited to the existing facility, within areas previously disturbed by clearing, grading and construction.
- The indirect APE includes potential visual, vibrational and other secondary types of effects that could impact historic resources. Based on the project activities, there is no significant indirect APE for the undertaking because these effects would be limited to

non-historic industrial buildings and infrastructure comparable to what is proposed in the undertaking.

2.0 Environmental Characteristics

2.1 Geology and Ecoregion

The regional landscape strongly influences the preservation and subsequent identification of any archeological materials that may have been deposited within the proposed project areas. The project area is located in Harris County, which occupies approximately 1,765 square miles (1,129,000 ac) in southeastern Texas (Wheeler 1976:1). It is situated within the San Jacinto River drainage basin which flows into the Gulf of Mexico, and it is immediately adjacent to Upper San Jacinto Bay.

The county is situated in the Western Gulf section of the Coastal Plain Physiographic Province of North America, and specifically the Northern Humid Gulf Coastal Prairies ecoregion (Perttula 1993; Ricklis 2004; Swanson 2001). The Northern Humid Gulf Coastal Prairies are situated at elevations between sea level and 300 feet above sea level, in an area that is characterized by low plains, and low gradient rivers and streams. The Beaumont Formation is the major geological landscape in the project area; it first developed during the Late-Pleistocene in a very fluidic and deltaic environment and is primarily composed of clay soils. The exposed portions of this formation are largely flat and featureless, except for some relict river channels which indicate a Pleistocene Gulf of Mexico shoreline, which has since receded (Crenwelge 2006:271). Wide relict channels, large meander radii, and meander belt scars are also present; these appear to reflect increased rainfall amounts from the Late Pleistocene through the Early Holocene (Crenwelge 2006:271). These meander patterns can be seen on ridge surfaces throughout the county (Wheeler 1976:45).

2.2 Soils

The United States Geologic Survey records three soil types within the proposed activity areas at the DPO facility. These are shown in Table 1 and Figure 4. However, the data is from 1976 and Figure 3 clearly demonstrates that these lands have been impacted by clearing and grading for industrial development. Previous to this, the sediments in the undertaking localities were almost completely designated as Beaumont clay, a poorly draining series that would have had low archaeological potential due to its lack of physiographic landforms, distance from potable water and lack of drainage.

Table 1: Project Area Soil Characteristics (Wheeler 1976)

Control Room Construction Area					
Soil Symbol	**Soil Name**	**Acres**	**Slope**	**Drainage**	**Percentage**
Ba	Beaumont clay	0.67	0 to 1%	Poor	96.34%
LcB	Lake Charles clay, 1 to 3 percent slopes	0.02	0 to 1%	Poor	3.46%
Ur	Urban land	0.00	n/a	n/a	0.20%
	Total =	0.70			100.00%

Boiler House Unit Construction Area					
Soil Symbol	**Soil Name**	**Acres**	**Slope**	**Drainage**	**Percentage**
Ba	Beaumont clay	7.45	0 to 1%	Poor	66.74%
LcB	Lake Charles clay, 1 to 3 percent slopes	0.03	0 to 1%	Poor	0.29%
Ur	Urban land	3.68	n/a	n/a	32.97%
	Total =	11.16			100.00%

2.3 Current Land Use

Although very little land is undeveloped within the DPO Facility, the Northern Humid Gulf Coastal Prairies ecoregion was historically used for livestock grazing and agriculture, but today it is a combination cropland, pastureland, rangeland, and urban and industrial development. Prairie grasses contribute to the local plant life, as well as cane brakes along waterways and forests of pecan, sugar hackberry, ash, southern live oak, and cedar elm trees dominate in the southern portion of the ecoregion (Perttula et al. 2004:74-75).

2.4 Climate

Harris County is characterized by a humid subtropical climate with short, mild winters and long hot summers. Rainfall is heavy and often comes in the form of afternoon thunderstorms. In regards to temperature, the average low for the area is 42ºF and average high is 92ºF; the area is frost free approximately 75% of the year. The mean annual rainfall ranges from 37 to 58 inches. The average humidity is high, at 74%. Snowfall is extremely infrequent, averaging 0.01 inches per year, but the area often receives intense weather in the form of the remnants of tropical storms, hurricanes, and tornadoes (Wheeler 1976:2, 59).

3.0 Cultural Resources Records Review and Findings

This section includes a brief overview of the history of the DPO facility area and a review of Native American tribes with a vested interest in Harris County. It also includes a review of known archaeological sites and other cultural resources within a 0.5 mile search radius of the project area and a summary of previous field investigations that have been recorded.

3.1 Summary of Deer Park History

The town of Deer Park was established in December 1892 by Illinois native Simeon Henry West. The following year, settlers began arriving and building houses and farms in the area. Also that year, a hotel and post office were erected, and West granted the Houston and Northern Railroad Company a 100 foot strip of land through the town (City of Deer Park, Texas 2013). The town was home to a Galveston, Harrisburg and San Antonio Railway Station by 1894. By the end of the century, forty people claimed residency in Deer Park, which boasted a hotel and general store (Kleiner 2013). West had reserved the rights for water, street cars, and telephone and electric lines, as well as establishing street names. Unfortunately, the town was devastated by a flood in 1900 that destroyed almost everything in and around it. With the exception of one family, the town was largely abandoned for the first three decades of the twentieth century. The post office was closed in 1919, and by 1922 the town only had four houses, a school house, and the hotel left (City of Deer Park, Texas 2013).

The arrival of a Shell Oil Company refinery in 1928 helped restore Deer Park. A school district was formed in the 1930s, and by 1938 the town had forty-eight homes. In 1940, the population had risen to 100. Deer Park began to grow substantially during the mid-1940s when several additional refineries and toluol plants were established in the vicinity. By 1948 that number had increased seven-fold to 700 residents and the town was incorporated on December 12th of that year. The first mayor was elected in early 1949 (City of Deer Park, Texas 2013).

The first Fire Marshall was hired in 1950, when the town had a recorded 736 residents. This increased exponentially by 1960 to 4,865 residents when the town had a fire station, city hall, playgrounds and parks, its own water supply, and four large industrial facilities in the city limits. The town's rapid growth was owed to the additional industrial facilities coming to the area that focused on manufacturing plastics, paper products, carbon, concrete products, and alkali materials. A local college, the San Jacinto Junior College was established to serve several of the local communities in 1961; the following year five acres of land were donated for a public

library. In 1965, the town was annexed by the nearby city of Houston (City of Deer Park, Texas 2013).

Since 1970, the population of Deer Park has risen steadily from 12,773 residents. In 1990, that number had risen to 27,652. Only a small increase occurred in the population by 2000, to 28,520, but there were 819 businesses in Deer Park (Kleiner 2013). Today, there are over 32,000 residents with a city hall, municipal court building, large school district, public library, a post office, railroad, as well as numerous hotels, industrial facilities and parks and recreational facilities (City of Deer Park, Texas 2013).

3.2 Native American Tribal Interests

A records review of the Texas Historical Commission's online "Guidelines for Tribal Consultation" database was conducted to determine what Native American Tribes may have an interest in Harris County, Texas. Only the Tonkawa Tribe of Oklahoma is specifically identified on the Texas Historical Commission dataset as including Harris County in their area of interest. Nineteen additional tribes have a known interest in Texas, but their territorial extent is not listed (Table 2).

Table 2: Native American Tribes with Possible Territorial Interest in the Project Area

Alabama-Coushatta Tribe of Texas	The Delaware Nation	Quapaw Tribe of Oklahoma
Alabama-Quassarte Tribe Town	Kialegee Tribal Town	Seminole Nation of Oklahoma
Apache Tribe of Oklahoma	Kickapoo Traditional Tribe of Texas	Thlopthlocco Tribal Town
Caddo Nation	Kickapoo Tribe of Oklahoma	Tunica-Biloxi Tribe
Cherokee Nation of Oklahoma	Kiowa Tribe of Oklahoma	United Keetoowah Band of Cherokee Indians
Coushatta Tribe of Louisiana	Mescalero Apache Tribe	Wichita and Affiliated Tribes
The Delaware Nation	Poarch Band of Creek Indians	

3.3 Previous Cultural Resources Investigations

A review of cultural resources data on the online Texas Archaeological Sites Atlas and National Register of Historic Places websites was conducted on July 11, 2013, to identify any previously recorded archaeological sites or National Register properties (NRHP) within the vicinity. A 0.5 mile search radius was used to ensure that all nearby resources were identified. It was determined that no known cultural resources of any type will be affected by the DPO undertaking (Figure 5). Four previous cultural resources surveys with negative findings have

been performed within 0.5 mile of the project areas. These include two United States Army Corps of Engineer surveys (Galveston District in 1979 and Vicksburg District in 1994), two FERC-regulated pipeline and ancillary facility studies in 2008 and 2011, and a Texas Parks and Wildlife monitoring project in 2010.

4.0 Assessment of Potential impacts to Historic Properties

All of the currently proposed DPO facility project components are fully located within the confines of the active Rohm and Haas facility. As shown in the attached photographs and aerial maps, there are numerous existing industrial buildings, flares, furnaces, cooling towers, tanks, and other infrastructure within this extensive facility. None of the existing industrial buildings have been identified as having particular local, state or national historic significance and do not meet the criteria of evaluation for being listed on the NRHP.

Because of the industrial landscape that surrounds the proposed construction zones and the lack of known cultural resources in the vicinity, the Area of Potential Effects (APE) for the project is limited to locations where ground disturbing activities would occur. These locations are the two boiler installation areas, the control room, and ancillary infrastructure shown in Figure 3. There is also one unspecified laydown area that will be located within these lands. No indirect visual or vibrational adverse effects can result from the undertaking, as there are no historic properties within these activity areas. The buildings and structures are in-keeping with the current landscape and will have a maximum height that is less than existing surrounding structures.

Given the level of extensive industrial development covering the proposed construction area, field and subsurface investigations throughout the APE are not deemed warranted by URS. The existing environment indicates the APE lacks the potential to contain undisturbed archeological resources that would meet the Section 106 criteria for being eligible for listing on the NRHP. It is the recommendation of URS that a finding of No Historic Properties Affected be applied to this undertaking.

5.0 References

City of Deer Park

2013 *History of Deer Park. Electronic document* (http://www.deerparktx.gov/department/?fDD=28-0). Accessed July 12, 2013.

Crenwelge, J.

2006 *Soil Survey of Jefferson and Orange Counties, Texas*. USDA Soil Conservation Service.

Griffith, G. E., S. A. Bryce, J. M. Omernik, J. A. Comstock, A. C. Rogers, B. Harrison, S. L. Hatch, and D. Bezanson

2004 *Ecoregions of Texas*, US Environmental Protection Agency, Corvallis, Oregon.

Kleiner, D. J.

2013 "Deer Park, TX," *Handbook of Texas Online. Electronic document,* (http://www.tshaonline.org/handbook/online/articles/hed02). Last accessed May 07, 2013. Published by the Texas State Historical Association.

Perttula, T. K.

1993 Section IV: Regional Preservation Plan for Archeological Resources, Southeast Texas Archeological Region. In *Archeology in the Eastern Planning Region, Texas: A Planning Document*, N. A. Kenmotsu and T. K. Perttula, pg. 205-213, Department of Antiquities Protection, Cultural Resources Management Report 3, Texas Historical Commission.

Ricklis, R. A.

2004 Occupation of Central and Lower Texas Coast. A Regional Overview. *In The Prehistory of Texas*. T. K. Perttula, Ed. Pp. 155–180. Texas A&M University Press, College Station.

Swanson, E. R.

2001 *Geo-Texas: A Guide to the Earth Sciences*. Texas A&M University Press, College Station, Texas.

Wheeler, F. F.

1976 *Soil Survey of Harris County, Texas.* U.S. Department of Agriculture Soil Conservation Service in cooperation with Texas Agriculture Experiment Station.

Figures

Figure 1 - Project Area Overview

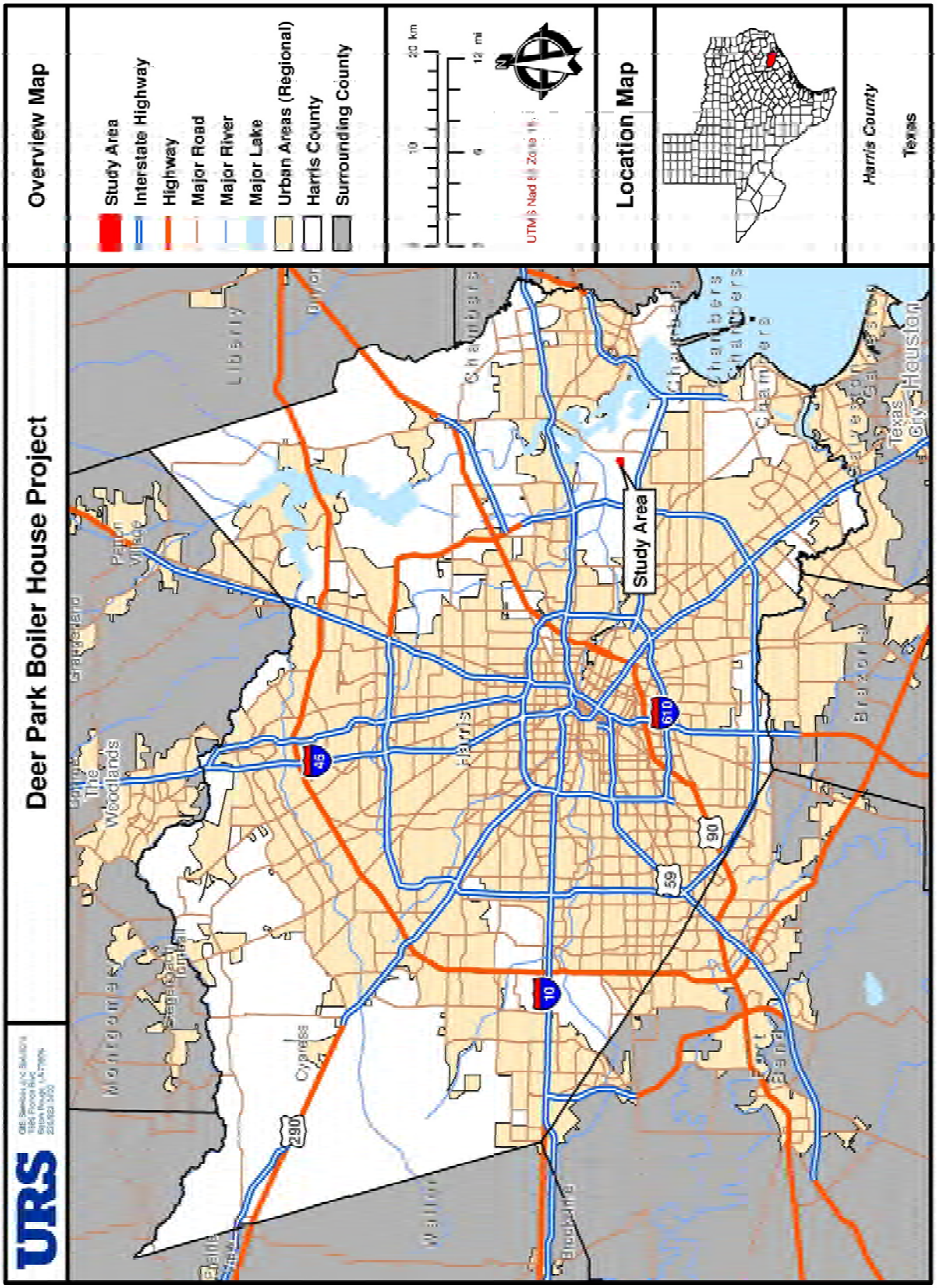


Figure 2 - Aerial Map Showing Rohm And Haas Facility

Figure 3 - Aerial Map Showing Project Activity Areas

Figure 4 - Soils Map

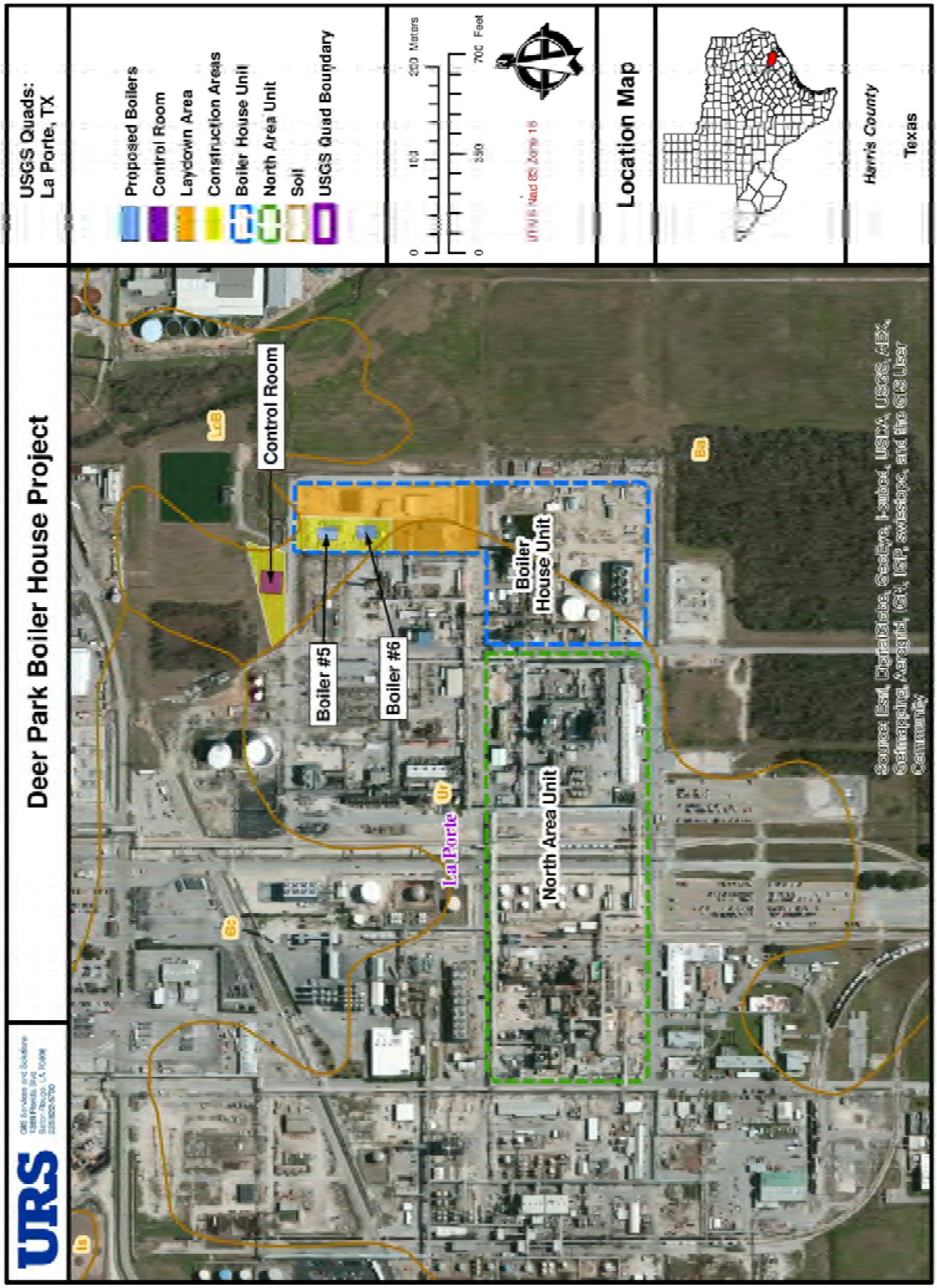
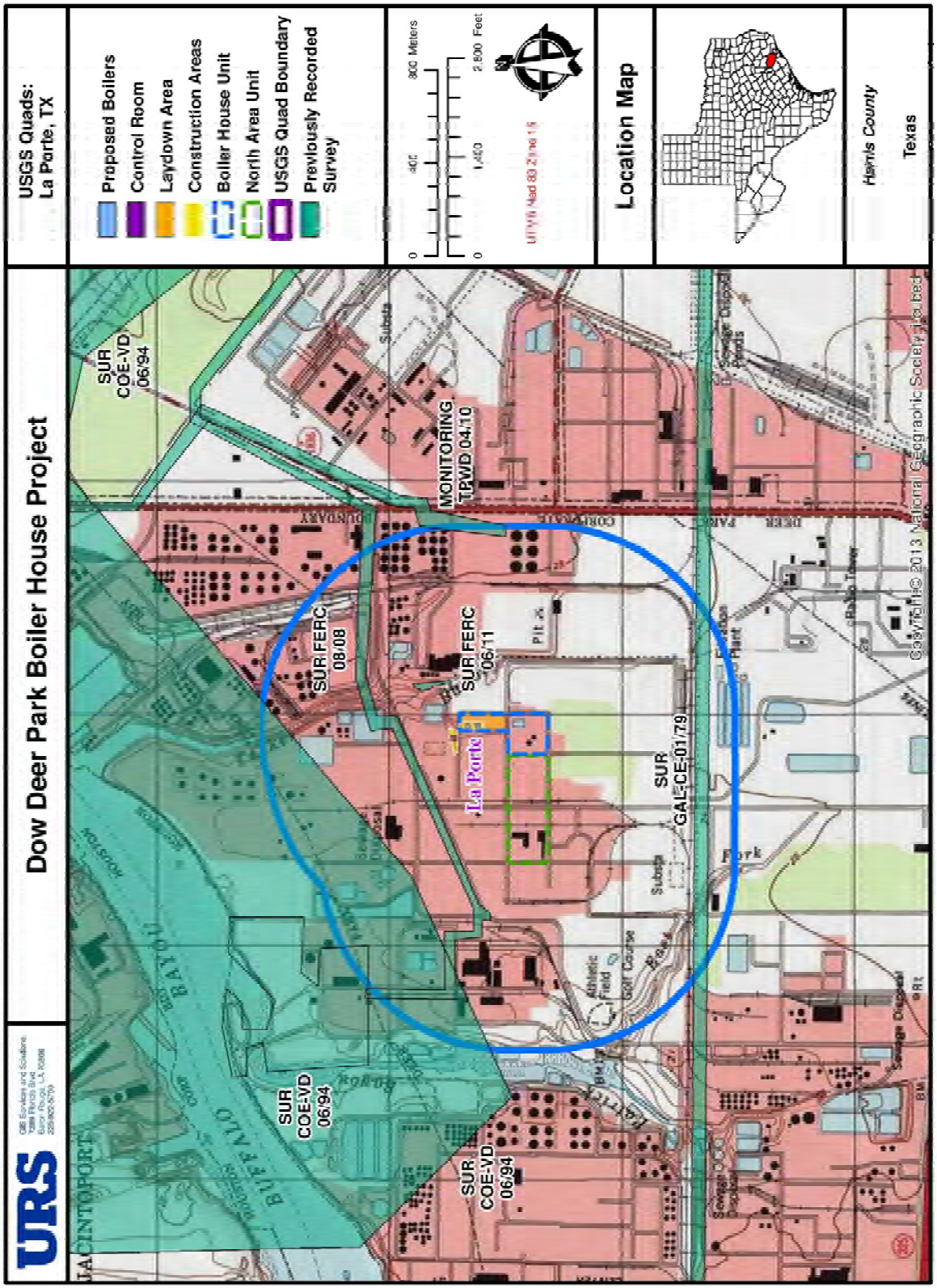


Figure 5 – Recorded Cultural Resources Surveys within 0.5 Miles



URS

Photographic Log

URS

N

0 250 500 1,000 Feet

Title: Photo Log			
Project: Boiler House Unit Installation Project			
Client: Rohm and Haas Texas, Incorporated			
Drawn by: CW	Date: 04/16/2013	Project No.: 41569414	Figure 2

Path: K:\ENV\ENV30\41569125\GIS\MXD\Photo_log.mxd

PHOTOGRAPHIC LOG

Client Name:	Site_Location:	Project No.
Rohm and Haas	DPO Site: Boiler House Unit	DRS220021-22350-1

Date:	Photo No.
4/30/2013	1

Direction Photo Taken:

S

Description:

Boiler 4 is located in the background along with the existing control room.

DSCN5981.JPG

Client Name:	Site_Location:	Project No.
Rohm and Haas	DPO Site: Boiler House Unit	DRS220021-22350-1

Date:	Photo No.
4/30/2013	2

Direction Photo Taken:

N

Description:

A concrete-lined drainage ditch is located north of Boilers 3 & 4 and west of the proposed boiler location. This drainage ditch appears to only channel surface water runoff.

DSCN5982.JPG

PHOTOGRAPHIC LOG

Client Name:	Site_Location:	Project No.
Rohm and Haas	DPO Site: Proposed Boiler Site	DRS220021-22350-1

Date:	Photo No.
4/30/2013	3

Direction Photo Taken:

NE

Description:

The proposed location for the new boilers is currently housing portable contractor trailers. The area is adjacent to maintained grass areas and pipeline headers.

DSCN5983.JPG

Client Name:	Site_Location:	Project No.
Rohm and Haas	DPO Site: Proposed Boiler Site	DRS220021-22350-1

Date:	Photo No.
4/30/2013	4

Direction Photo Taken:

NE

Description:

The proposed location for the new boilers is currently housing portable contractor trailers. The area is adjacent to maintained grass areas and pipeline headers. A concrete lined ditch is west of the proposed project site and appears to only channel surface water runoff.

DSCN5984.JPG

PHOTOGRAPHIC LOG

Client Name:	Site_Location:	Project No.
Rohm and Haas	DPO Site: Boiler House Unit	DRS220021-22350-1

Date:	Photo No.
4/30/2013	5

Direction Photo Taken:

SE

Description:

A DI pond is located south of the proposed boilers and east of the existing boilers. This area is surrounded primarily be crushed gravel and asphalt. This area is intended to detain all boiler blowdown that is not being recycled through the units.

DSCN5985.JPG

Client Name:	Site_Location:	Project No.
Rohm and Haas	DPO Site: Boiler House Unit	DRS220021-22350-1

Date:	Photo No.
4/30/2013	6

Direction Photo Taken:

SE

Description:

A mixed woodland habitat was observed south of the DI pond.

DSCN5986.JPG

PHOTOGRAPHIC LOG

Client Name:	Site_Location:	Project No.
Rohm and Haas	DPO Site: Boiler House Unit	DRS220021-22350-1

Date:	Photo No.
4/30/2013	7

Direction Photo Taken:

E

Description:

A landfill owned and operated by (XXX) is located east of Boiler House Unit. This company currently receives various waste products from different companies and disposes it in this area.

DSCN5987.JPG

Client Name:	Site_Location:	Project No.
Rohm and Haas	DPO Site: Proposed Boiler Site	DRS220021-22350-1

Date:	Photo No.
4/30/2013	8

Direction Photo Taken:

W

Description:

The proposed boiler location is currently a concrete-paved area with contractor vendor trailers that will be translocated for the project.

DSCN5988.JPG

PHOTOGRAPHIC LOG

Client Name:	Site_Location:	Project No.
Rohm and Haas	DPO Site: Proposed Boiler Site/ Construction Laydown	DRS220021-22350-1

Date:	Photo No.
4/30/2013	9

Direction Photo Taken:

SE

Description:

The southern portion of this concrete lot is expected to be the location of the construction laydown area. It consists of paved concrete.

DSCN5989.JPG

Client Name:	Site_Location:	Project No.
Rohm and Haas	DPO Site: Adjacent to Boiler House Unit	DRS220021-22350-1

Date:	Photo No.
4/30/2013	10

Direction Photo Taken:

NE

Description:

Battleground owns a man-made pond within the DPO Site. This open water feature is located north of the proposed boiler units and east of the proposed control room area.

DSCN5991.JPG

PHOTOGRAPHIC LOG

Client Name:	Site_Location:	Project No.
Rohm and Haas	DPO Site: Adjacent to Boiler House Unit	DRS220021-22350-1

Date:	Photo No.
4/30/2013	11

Direction Photo Taken:

N

Description:

Proposed area for the new control room that will be constructed with the new boilers. This control room will replace the existing control room located to the south. The area is a currently maintained grass area near a earthen ditch and man-made pond.

Resumes

URS

Robert J. Lackowicz M.A., R.P.A.

Cultural Resource Manager/Technical Writer

Areas of Expertise

- Section 106 Compliance
- Phase I, II, and III Cultural Resources Studies
- Technical Writing;
- HUD Projects
- Natural Gas Pipeline Studies
- Federal Energy Regulatory Commission (FERC) - Third Party Review
- Transportation Corridor Studies - Hydroelectric Transmission Line Corridors and Facilities
- State and Federal Agency Coordination
- Project Management

Years of Experience

With URS: 3 Years
With Other Firms: 17 Years

Education

- MA/Anthropology/1996/ Trent University
- BA/Anthropology/1991/ Memorial University

Overview

Mr. Lackowicz has 20 years of cultural resource management experience, with the last 7 years involving projects within Alabama, Florida, Georgia, Louisiana, Mississippi, Oklahoma, South Carolina, and Texas. He is the lead cultural resource manager overseeing thousands of individual Section 106 archaeological and architectural history studies that are being conducted for the Mississippi Development Authority's post-Hurricane Katrina Gulf Coast recovery programs. He has supervised the architectural salvage and archaeological monitoring of post-Katrina housing demolitions conducted by the Federal Emergency Management Agency and developed Section 106 compliance plans for U.S. Army Corps of Engineers (USACE) levee restoration projects in the New Orleans metropolitan area. He has conducted the full range of archaeological studies (Phase I/II/III and monitoring) and produced planning documents for federal, state and Canadian regulators. His other work in the southern states includes archaeological assessments for private companies involving FERC-regulated pipelines that cross multiple states, the Louisiana Dept. of Transportation and Development, and an everglades reclamation project overseen by the US Army Corps of Engineers, Jacksonville District. He also has conducted independent technical reviews on behalf of the Federal Energy Regulatory Commission and the U.S. Department of State to ensure Section 106 compliance of proposed natural gas pipeline and liquefied natural gas facilities in Texas and an international pipeline crossing seven Midwestern states.

Project Specific Experience

Lead Cultural Resources Manager, City of Galveston, Texas, Round 1 Hurricane Ike Disaster Recovery Housing Program, 2012-current: Mr. Lackowicz is the cultural resources program lead for URS and the City of Galveston for Section 106 agency coordination. He led the development of the Programmatic Agreement between state and local agencies that guides HUD and National Historic Preservation Act compliance for the program. He oversees cultural resources staff from several offices that implement architectural history and archaeological studies needed for individual project compliance. He has also identified and negotiated with state and federal agencies the resolution of Adverse Effects that occurred prior to URS becoming the City's program manager.

Cultural Resource Project Lead, Mississippi Development Authority (MDA) Disaster Recovery Programs, Elevation Grant, Small Rental Assistance, Neighborhood Home, Neighborhood Rental Restoration, Long Term Workforce Housing and Alternative Housing Pilot Programs, Forrest, George, Harrison, Hancock, Jackson, Jones, Lamar, Pearl River and Stone Counties, Mississippi (2008-2012): Cultural resources program lead for five

Hurricane Katrina disaster recovery programs. MDA Point of Contact for Section 106 agency coordination, responsible for development, implementation and oversight of individual archaeological and architectural assessment reports for 3000+ properties, negotiator for programmatic amendment between MDA, Advisory Council on Historic Preservation, National Trust for Historic Preservation, State Historical Preservation Office and Native American Tribes and co-developer of an archaeological sensitivity map designed to determine which of the program application sites required cultural resources field evaluation (Jackson, Hancock, Harrison, and Pearl River Counties, Mississippi).

Cultural Resource Manager, Air Products and Chemicals, Jefferson County, Texas, 2011: Principal Investigator for a Phase I cultural resources inventory of proposed 13 mile long CO_2 and 7 mile long hydrogen pipelines and writer for cultural resource section of the Environmental Assessment for pipeline and associated activities in existing refinery and oil field.

Cultural Resource Manager, Chesapeake Operating Inc., DeSoto Parish, Louisiana, 2010: Principal Investigator for a Phase I cultural resources inventory studies at oil leases and access roads scattered within the Parish.

Cultural Resource Manager, Natural Gas Pipelines and Liquified Natural Gas Facilities, Various Counties and Parishes in Alabama, Florida, Georgia, Louisiana, Mississippi and South Carolina for Southern Natural Gas Company, 2004-2010: Project Manager / Senior Project Manager for Phase I and Phase II cultural resources studies associated with proposed natural gas pipeline and liquefied natural gas facility projects, including Elba Island LNG facility, Cypress Pipeline, Elba Express Pipeline and multiple abandonment / replacement projects.

Cultural Resource Manager, Hurricane Protection Studies, New Orleans, Louisiana, United States Corps of Engineers (USACE), 2007: Senior Project Manager overseeing development of Section 106 management plans for the West Bank of New Orleans, USACE post-Hurricane Katrina Independent Environmental Review (IER) levee repair and restoration projects (St. Charles, Jefferson, Orleans, and St. Bernard Parishes, Louisiana) and Phase I inventory study of Sebastopol Borrow Pit (St. Bernard Parish, Louisiana).

Senior Technical Reviewer, TransCanada Keystone and Cushing Extension Pipelines, Various Counties in North Dakota, South Dakota, Missouri, Nebraska, Illinois, Kansas and Oklahoma, 2007-2008: Senior Technical Reviewer for Entrix and the U.S. State Department, determining Section 106 compliance for the United States portion of this international pipeline and writing the cultural resource sections of the resulting Environmental Impact Statement.

Cultural Resource Manager, Natural Gas Pipelines and Facilities,

Various Counties in Texas and Oklahoma, 2005, 2007: Senior Project Manager for Phase I cultural resources studies associated with two proposed natural gas pipeline projects in east Texas. Brazoria Interconnector Gas Pipeline and Gulf Crossing Pipeline projects (Brazoria, Cass, Delta, Fannin, Franklin, Grayson, Hopkins, Lamar, Morris, and Titus Counties, Texas; also Bryan County, Oklahoma).

Cultural Resource Manager, Natural Gas Pipelines and Facilities, Various Parishes in Louisiana, 2004, 2007: Project Manager and Senior Project Manager for archaeological predictive modeling and Phase I cultural resources studies associated with three proposed natural gas pipeline and/or facility projects; Shannon to Carthage Natural Gas Pipeline, BOA Pipeline Project, and Continental Connector Pipeline Project (Bossier, Caddo, Claiborne, East Carroll, Jefferson, Lafourche, Lincoln, Morehouse, Ouachita, Plaquemines, Union, Webster, and West Carroll Parishes).

Cultural Resource Manager, Natural Gas Pipelines and Facilities, Various Counties in Mississippi, 2006-2007: Senior Project Manager for Phase I cultural resources studies associated with three proposed natural gas storage and pipeline projects. Petal Cavern Conversions, Smith Parcel Wells, and Petal Compressor Station 3 projects (Forrest, Greene, Jasper, and Smith Counties, Mississippi).

Cultural Resource Manager, Road Improvement and Expansion, Alabama and Louisiana, 2004-2006: Senior Project Manager for Phase I cultural resource inventories associated with the I-49 North project corridor (Caddo and Natchitoches Parishes, Louisiana) and a cultural resource predictive modeling effort associated with the proposed US 84 to US 80 West Alabama Freeway Project (Choctaw, Clarke, Marengo and Sumter Counties, Alabama).

Cultural Resource Manager, Jacksonville, United States Corps of Engineers (USACE), 2005: Project Manager for Phase I and Phase II cultural resources inventory associated with the Picayune Strand Cultural Resources Survey. Project was performed in support of Everglades wetland restoration at a proposed residential development site that was cancelled(Collier County).

Principal Investigator, Transmission Lines and Facilities, Louisiana, 2005: Principal Investigator for Phase I cultural resource inventory study for a proposed Entergy power line corridor in Tangipahoa Parish.

Conecuh National Forest, Escambia County, Alabama, 2004: Contributor for Phase I cultural resource reports for 48 timber sale stands within Compartments 61, 62, 63, and 64 of the Conecuh National Forest.

Naval Air Station Pensacola, Escambia County, Florida, 2007:

Contributor to Phase I cultural resources studies associated with the proposed undergraduate navigator training program building expansion.

Principal Investigator, Forestry Assessments, British Columbia, Canada, 1996-2003: Principal Investigator and major contributor to the development of 11 large scale (ca. 750,000 to 1,600,000 acres) GIS and non-GIS archaeological predictive models and Principal Investigator for various Phase I, II and III cultural resource investigations for Atco Lumber Ltd., Kalesnikoff Lumber Co. Ltd., Meadow Creek Cedar Ltd., and Pope and Talbot Ltd. and the B.C. Ministry of Forests (Arrow, Boundary, Columbia, Kootenay Lake, and Vernon Forest Districts).

Principal Investigator, Transmission Lines and Facilities, British Columbia, Canada, 1996, 1999-2001, 2004: Principal Investigator and major contributor for archaeological predictive modeling studies for hydroelectric power projects (West Kootenay Power 230kV Transmission System, Brilliant Expansion, and Keenleyside Powerplant projects) and Phase I cultural resources inventory investigations for West Kootenay Power 230kV Transmission System and Aquila Networks Canada transmission systems.

Project Manager/Principal Investigator, Natural Gas Pipelines and Facilities, British Colombia, Canada, 1997-1998, 2001-2002: Project Manager and Principal Investigator for Phase I, II and III cultural resources inventory studies for the Southern Crossing Pipeline Project, including Phase III data recoveries at two prehistoric sites and monitoring of site alterations at seven historic and prehistoric sites.

Residential Subdivisions, British Columbia and Ontario, Canada, 1995-1997, 1999-2000, 2000, 2002-2004: Principal Investigator and Crew Chief for Phase I cultural resources investigations concerning 15 proposed subdivision, golf course and park developments.

Professional Societies/Affiliates

Register of Professional Archaeologists (RPA)

Academic Manuscripts

1991 A Palaeobotanical Investigation in the Acadian Region of the Maritime Provinces, in Comparison to Archaeological and Ethnohistorical Evidence. B.A. Honours Thesis on File, Dept. of Anthropology, Memorial University of Newfoundland, St. John's.

1996 An Attribute and Spatial Analysis of Several Ground Stone Artifact Types From Southern Ontario, in Relation to their Patterning and Context in the Northeast. M.A. Thesis on File, Dept. of Anthropology, Trent University, Peterborough, Ontario.

Chronology

03/2008-Present: URS Corporation, Baton Rouge, LA
06/2004-02/2008: R. C. Goodwin & Associates, New Orleans, LA
01/1996-06/2004: Kutenai West Heritage Consulting, Kelowna, BC

URS

Lauren B. Poche, M.A.

Historian/Archaeology Lab Supervisor

Areas of Expertise

- Section 106 Compliance
- Phase I, II, and III Cultural Resources Surveys
- Phase I, II, and III Cultural Material Analysis
- National Register of Historic Places Application Preparation
- Archival and Historic Research
- Data Management and Coordination

Years of Experience

- With URS: 4 Years
- With Other Firms: 6 Years

Education

- MA/History – Public History/2012/ Southeastern Louisiana University
- BA/Anthropology – Archaeology/2002/Millersville University of Pennsylvania

Registration/Certification

- Asbestos Training, 2008
- OSHA Construction Safety & Health 2007

Overview

Ms. Poche has ten years of cultural resource management experience within the Northeast, Mid-Atlantic, Southeast, and Midwest. She has recently completed her Master of Arts in History at Southeastern Louisiana University in Hammond, Louisiana, where she concentrated on Public History, Southern History, and Louisiana History, with an emphasis on sugar plantations and mills.

Ms. Poche currently acts as a Historian, and Archaeology Laboratory Supervisor/Analyst. As the laboratory supervisor, her main responsibilities include analysis of prehistoric and historic period artifacts, taking and preparing artifact photos, and preparing artifact discussions and tables for reports. Her additional responsibilities include database creation and management, preparation of collections for turnover to state and federal agencies, and the management of lab staff. Ms. Poche has lead or assisted in the preparation of collections for turnover to Alabama, Arkansas, Florida, Georgia, Louisiana, Maryland, Michigan, Mississippi, Pennsylvania, Texas, Virginia, West Virginia, and Puerto Rico. She also has experience with preparing several collections for the National Park Service from sites in the Mid-Atlantic and Northeast.

Ms. Poche also conducts background research on project areas, historical research including chain of title research, prepares historical period chapters for reports, and supervises field projects. She has acted as field supervisor in Georgia, Kansas, Louisiana, and Texas and as a field archaeologist in Connecticut, Florida, Georgia, Kansas, Louisiana, Maryland, Mississippi, New Jersey, Pennsylvania, Tennessee, and Virginia. Project types she has worked on include golf courses, highway and road expansions, military base expansion, pipelines, subdivisions, urban expansion, and levee improvements.

Project Specific Experience

Historian/Archaeology Laboratory Supervisor/Field Supervisor, Damage Assessment, Phase II and Phase III Investigations, Nucor Steel Louisiana, LLC, St. James Parish, Louisiana, 2010-2012: Ms. Poche conducted historic background research, artifact collection inventories, artifact analysis, prepared the report discussions, and photographed notable artifacts for several localities located on three sites situated on the proposed Nucor Steel Louisiana, LLC property in St. James Parish. Ms. Poche also supervised a portion of the backhoe excavation of a large nineteenth century sugar mill on the property, in addition to the damage assessment of a 15 acre parcel along The Mississippi River.

Historian/Archaeology Laboratory Supervisor, NRG Petro-Nova 80 Mile Pipeline Project, Fort Bend, Wharton, and Jackson Counties Texas, 2012: Ms. Poche was responsible conducting historic research and preparing the discussion on the history of the study area. She also conducted the artifact analysis and report discussions for six archaeological sites identified during the course of the project.

Historian, SELA Historic Landscape Planning Study – Right-of-Way on Napoleon Avenue from South Claiborne Avenue to Constance Street, Orleans Parish, Louisiana, 2011-2012: Ms. Poche conducted archival and historic research for the portion of Napoleon Avenue between Carondelet Street

and Constance Street, in addition to preparing the historic discussion for this area. She also prepared the discussions focusing on the vegetation types, encaustic tiling, historic granite curbing, and lighting units present along the entirety of the project area.

Historian/Archaeology Laboratory Supervisor, Enbridge Energy Proposed 35.2 Mile Long Line 79, Ingham, Jackson, and Washtenaw Counties, Michigan, 2011–2012: Ms. Poche conducted historical research and prepared the historical discussions for the project area and adjacent communities. In addition to this, she also conducted the artifact analysis, and prepared the artifact discussions and photographs for the report.

Historian/Archaeology Laboratory Supervisor, Main Street, LLC - Phase III Investigations, Louisiana, 2011–2012: Ms. Poche was responsible for conducting archival research for the study area and preparing discussion on the history of the property located in downtown Baton Rouge. She conducted also the artifact analysis of over 6,500 historic artifacts collected from the site, prepared the artifact discussions and photographs for the report. In addition to this, Ms. Poche prepared the state catalog sheets, field paperwork, and photographs for turnover to the State of Louisiana, conducted chain of title research on the property, and prepared the historic period chapter for the report.

Historian/Archaeology Laboratory Supervisor, Seven Union Pacific Rail Road Projects in St. Landry, Pointe Coupee, Iberville, St. James, St. John the Baptist, and St. Charles Parishes, Louisiana, 2011-2012: Ms. Poche prepared the historic period overview as well as the artifact collection inventories, artifact analysis, prepared the artifact discussions, and photographed notable artifacts for the Union Pacific Project.

Archaeology Laboratory Supervisor, Sasol North America, Inc. Site Assessment of the Westlake Sasol Gas to Liquids and Lake Charles Cracker Project, Calcasieu Parish, Louisiana, 2012: Ms. Poche conducted the artifact analysis, completed artifact discussions and tables, and photographed artifacts for the Sasol Site Assessment Project.

Internship for Master of Arts Degree in History for Southeastern Louisiana University at the Louisiana Division of Historic Preservation, Baton Rouge, Louisiana, 2010: In the summer of 2010, Ms. Poche completed a two month long internship with the Louisiana Division of Historic Preservation as part of the internship requirement for the Public History option in the Graduate Program for the Department of History and Political Science at Southeastern Louisiana University in Hammond, Louisiana.

Internship for Master of Arts Degree in History for Southeastern Louisiana University at the Louisiana Division of Historic Preservation, Baton Rouge, Louisiana, 2010/2011: During the summers of 2010 and 2011, Ms. Poche completed two, two month long internships with the Louisiana Division of Historic Preservation as part of the internship requirement for the Public History option in the Graduate Program for the Department of History and Political Science at Southeastern Louisiana University in Hammond, Louisiana. In the summer of 2010, Ms. Poche assisted in the plotting of buildings and cemeteries recorded through the Louisiana Historic Standing Structures Survey, and the scanning of the original documents to PDF format. Using ArcGIS, she plotted and verified the location of approximately 1500

standing structures in Ascension and Avoyelles Parishes. This information will eventually be uploaded to the Louisiana Cultural Resources Map. In 2011, Ms. Poche assisted in the National Register of Historic Places Program, the Main Street Louisiana Program, the Tax Credits and Incentives Program, and the Section 106/Historic Preservation Reviews. In addition to these tasks, Ms. Poche also prepared a National Register of Historic Places form for a contemporary house located in Baton Rouge, Louisiana.

Historian/Archaeology Laboratory Supervisor, Gulf Coast Connection Project for Air Products and Chemicals, Inc. (APCI), Jefferson and Orange Counties, Texas and Calcasieu, Jefferson Davis, Acadia, Lafayette, St. Mary, Iberville and West Baton Rouge Parishes, Louisiana, 2009-2011: Ms. Poche conducted the artifact analysis, completed artifact discussions and tables, and photographed artifacts for the Gulf Coast Connection Project.

Historian/Archaeology Laboratory Supervisor, Mississippi Development Authority (MDA) Disaster Recovery Programs, Elevation Grant, Small Rental Assistance, Neighborhood Rental Restoration, Long Term Workforce Housing, Alternative Housing Pilot, and Neighborhood Home Programs – Forrest, George, Hancock, Harrison, Jackson, Jones, Lamar, Pearl River, and Stone Counties, Mississippi, 2008–2012: Ms. Poche conducted the analysis, and prepared the artifact discussions and photographs for archaeological sites discovered during the testing of properties associated with the Mississippi Development Authority Programs, including Phase II National Register eligibility testing at two sites on the Gulf Coast. She currently assists in certifying applications for concurrence with Section 106 Compliance.

Archaeology Laboratory Supervisor, Cleco 7-Mile Transmission Line, Natchitoches Parish, Louisiana, 2010: Ms. Poche conducted the historic artifact analysis, completed artifact discussions and photographed artifacts for the project report. In addition to her lab duties, she also prepared the Historic Settings portion of the report.

Historian/Archaeology Laboratory Supervisor, Napoleonville Community Center, Assumption Parish, Louisiana, 2010: Ms. Poche conducted the historic artifact analysis, completed artifact discussions and photographed artifacts for the project report. In addition to her lab duties, she also wrote the Natural Settings, Previous Investigations, and History portions of the report.

Archaeology Laboratory Supervisor, Petrohawk Haynesville-Shale Archaeological Predictive Model Project, Bossier, Caddo, DeSoto, Natchitoches, Red River, Sabine, and Webster Parishes, Louisiana, 2010: Ms. Poche conducted the data collection of all archaeological sites, cemeteries, cultural resource survey reports, historic standing structures, National Historic Landmarks, and National Register of Historic Places items within the area of interest. In addition to the data collection, Ms. Poche assisted in the plotting of these items in ArcPad for the predictive model.

Archaeology Laboratory Supervisor, Reporting for Archaeological Monitoring of FEMA-Funded Demolition of Residential Structures in Orleans Parish as a Result of Hurricanes Katrina and Rita, 2010: Ms. Poche conducted the historic artifact analysis, completed artifact discussions and tables, and photographed artifacts for the Orleans Parish FEMA-Funded Demolitions Project. In addition to this Ms. Poche also supervised the curation of artifacts for turnover to the State of Louisiana.

Archaeology Laboratory Supervisor, International Paper-Vicksburg Project, 2009: Ms. Poche conducted the prehistoric and historic artifact analysis, completed artifact discussions and photographed artifacts for the project report.

Archaeology Laboratory Supervisor, Mississippi Gulf Coast Community College Expansion Project, 2009: Ms. Poche conducted the historic artifact analysis, completed artifact discussions and photographed artifacts for the Mississippi Gulf Coast Community College Expansion Project.

Archaeology Laboratory Supervisor, Mississippi Development Authority (MDA) Disaster Recovery Programs, 2008-2010 Elevation Grant, Small Rental Assistance, Neighborhood Rental Restoration, Long Term Workforce Housing and Alternative Housing Pilot Programs, Hancock, Harrison, Jackson and Pearl River Counties, Mississippi, 2008-2011: Ms. Poche conducted the artifact analysis, completed artifact discussions and photographed artifacts for the all five programs.

Archaeological Crew Chief/Archaeology Laboratory Supervisor, Various Projects, Louisiana, 2008-2009: Ms. Poche has acted as an Archaeological Crew Chief on a number of proposed projects since joining URS, including pipelines, tank farms, and non-federal levee improvements and borrow pits. In addition to those duties, she has conducted background research on previous archaeological information, historical research, artifact analysis, and assisted in report writing and production.

Professional Societies/Affiliates

Louisiana Archaeology Society
National Council on Public History

Chronology

5/2008-Present: URS Corporation, Baton Rouge, Louisiana
6/2011-7/2011: Internship at the Office of Culture, Recreation and Tourism, Louisiana Division of Historic Preservation, Baton Rouge, Louisiana
6/2010-7/2010: Internship at the Office of Culture, Recreation and Tourism, Louisiana Division of Historic Preservation, Baton Rouge, Louisiana
10/2006-05/2008: R. Christopher Goodwin & Associates, New Orleans, Louisiana
10/2002-10/2006: R. Christopher Goodwin & Associates, Frederick, Maryland

Contact Information

URS Corporation
7389 Florida Blvd, Suite 300
Baton Rouge, LA 70806
Tel: 225.922.5700, Ext. 16743
Direct: 225.929.6743
Cell: 225.405.7676
Lauren.Poche@urs.com