

US EPA ARCHIVE DOCUMENT

D R A F T R E P O R T

CULTURAL RESOURCES ASSESSMENT

OF THE PROPOSED EQUISTAR CHEMICAL COMPANY

LA PORTE QE-1 OLEFINS PLANT EXPANSION PROJECT

LA PORTE, HARRIS COUNTY, TEXAS

**Prepared for: Equistar Chemical Company
1515 Miller Cut Off Road, La Porte, TX 77571**

AND

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

Prepared by: Lauren Poche and Robert Lackowicz

December 6, 2012

Project No. 25014936

URS

**URS Corporation
7389 Florida Blvd., Suite 300
Baton Rouge, Louisiana 708 06
225/922-5700**

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REPORT SUMMARY

Equistar Chemical Company (Equistar) has submitted a permit application to the United States Environmental Protection Agency (USEPA) Region 6 for Greenhouse Gases (GHG) Prevention of Significant Deterioration (PSD) Permit for the proposed QE-1 Olefins Plant Expansion at the La Porte Chemical Complex. The USEPA Region 6 has determined, in accordance with Advisory Council on Historic Preservation regulations pertaining to historic properties protection (36 CFR 800.4), that the project is subject to the provisions of Section 106 of the National Historic Preservation Act (NHPA) of 1966 (as amended). Section 106 of the NHPA requires federal agencies take into account the effect that an undertaking will have on historic properties. Historic properties are those included in, or eligible for inclusion in, the National Register of Historic Places (NRHP) and may include archeological sites, buildings, structures, sites, objects, and districts.

URS Corporation (URS), at the request of Equistar, conducted a desktop cultural resource review for the proposed QE-1 Olefins Plant Expansion Project. The purpose of this review was to identify any historic properties that might be adversely affected within the boundaries of the proposed undertaking. The project area is fully located within an active chemical processing plant with existing industrial buildings and infrastructure that range in age from 1959 to 2002. The direct Area of Potential Effect (APE) where ground disturbing activities would occur for the expansion project is limited to three (3) areas, all within the existing Olefins Unit, totaling approximately 1.6-acres. In addition, there are six (6) areas totaling approximately 32.0-acres within the facility boundary that are periodically used for construction material laydown and extra work space that will also be used in association with this project. The indirect APE is limited to visual effects from the new cooling cells and furnace's construction to buildings and archaeological sites within direct visual sight of the completed facility, which given the existing terrain and placement of industrial buildings, is estimated to be less than one quarter mile.

Subsurface investigations throughout the direct APE were not deemed warranted. In conjunction with existing geologic and soil conditions, the review indicated that there was no potential for the project to affect undisturbed archaeological sites based upon previous disturbances from historic and modern land use, as well as the presence of existing infrastructure and facilities. Three known archaeological sites are situated more than 1000 feet (300 meters) to the east of proposed project activities. All three sites are prehistoric shell middens located on the shoreline of Upper San Jacinto Bay and undisturbed archaeological deposits associated with these sites that would meet the criteria for listing in the NRHP are not expected to be directly impacted by the proposed plant improvements, based on the types of materials associated with these sites, their distance from the proposed project activities and the level of existing land disturbance. The Texas Archeological Sites Atlas does not state whether the three sites are NRHP-eligible historic

properties. A direct investigation of the three localities was not warranted given their distance from the proposed project activities. The documentation on file indicates, if intact, that Sites 41HR260 and 41HR613 are potentially eligible for listing on the NRHP. Site 41HR261, however, is stated as having been destroyed by 1988 and therefore would not be a NRHP-eligible historic property. No historic buildings outside the facility that could be visually affected by the project lie within the indirect APE. Based on these data, it is the opinion of URS that the project will not adversely affect historic properties that are eligible for inclusion to the NRHP. We therefore recommend that a Section 106 finding of No Historic Properties Present or Affected be applied to this undertaking.

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ATTACHMENTS

- Attachment 1 - Figures
- Attachment 2 – Photographic Log
- Attachment 3 - Resumes

1.1 PROJECT INTRODUCTION

Equistar Chemical Company (Equistar) has submitted a permit application to the United States Environmental Protection Agency (USEPA) Region 6 for a Greenhouse Gases (GHG) Prevention of Significant Deterioration (PSD) Permit for the proposed QE-1 Olefins Plant Expansion at the La Porte Chemical Complex, located in La Porte, Harris County, Texas (Figure 1). Equistar proposes to expand the plant and increase the production capacity with the construction of two additional cracking furnaces and associated process equipment within the existing plant footprint, immediately adjacent to nine existing cracking furnaces.

The 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 Corporation (URS), at the request of Equistar, conducted a desktop cultural resource review for the proposed QE-1 Olefins Plant Expansion Project in order to assess the potential of the proposed development 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 total Area of Potential Effect (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.

The proposed project is located approximately 2.3 miles north-northwest of the intersection of Texas State Highways 225 and 146N. The site is located on the La Porte United States Geological Survey (USGS) Quad, at 29.708° north latitude and 95.061° west longitude (Figure 2). Construction for the proposed expansion, associated infrastructure and auxiliary equipment will take place entirely within the confines of the existing facility. Excavations will be limited to three discrete locations within the area designated QE-1 Olefins Unit in Figure 3. The project will include two new furnaces, two new selective catalytic reduction systems, a new decoking

drum, new fugitive components, a new group of analyzer vents, additional cells added to the cooling tower, and new ammonia storage and ammonia loading scrubber. Several surrounding areas to the southeast, south and west will not involve land removal but will be used temporarily during construction of the proposed project. These include a furnace contractor laydown and fabrication area; new equipment laydown; vendor trailers; and a fabrication area (Figure 3). The laydown areas are separated by a wide, maintained pipeline corridor that was partially surveyed under a contract issued by the Army Corps of Engineers in 1979, with negative results (see Section 1.7).

According to the project plans, the new cooling tower cells shown on Figure 3 will be built directly east of an existing cooling tower. The foundation for these cells will be excavated up to six foot depth, while a proposed ammonia sump located within the chemical storage location will be excavated up to 12 foot depth. Based on observations from a cultural resource study conducted in 1988 (see Section 1.7) the cooling cells will be excavated into disturbed, graded terrain including fill that was brought into the location when the industrial facility was first constructed. According to facility staff who have been onsite since 1989, the area around the proposed cooling area has also previously been excavated to these depths for installation of a firewater line, cooling tower lines, a drainage ditch, and a cathodic protection well.

The area for the new furnaces shown in Figure 3 will also be excavated in the same graded and filled terrain to about six foot depth. This depth is similar to the existing facility furnaces that have been emplaced to the north, along with some appurtenant elements such as electrical ducts and an existing pipe rack to the west, and a buried firewater line that lies to the south and west sides of the new furnace area. A conduit was also buried in the new furnace area to about 2 foot depth for construction trailer utilities when the existing furnaces were built.

1.2 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 (Pertulla 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).

1.3 SOILS

Within the broader expanse of the entire La Porte facility there are six general soil series (Wheeler 1976; Table 1). These are Midland-Beaumont association prairie soils and Aldine-Ozan association forested soils, which include Addicks loam, Aldine very fine sandy loam, Atasco fine sandy loam, Bernard-Edna complex, Verland Silty clay loam. Urban land and water are also noted within the area.

Addicks loam soils are associated with flats, or broad areas on the upland prairies, and are characterized as poorly draining. Aldine very fine sandy loam soils are also affiliated with flats, but are found in association with broad wooded areas that are poorly drained. Atasco fine sandy loam soils are moderately well drained soils found on gently sloping terraces along river valleys. The Bernard-Edna Complex consists of poorly drained soils associated with meander scrolls. Verland silty clay loam soils are also associated with meanders and are poorly drained soils (Wheeler 1976).

Although urban land only accounts for 30% of the soils within the plant boundaries, large portions of the other soil units also display urban land characteristics due to industrial development that has occurred since the soil maps were developed. The three discrete excavations areas within the QE1 Olefins Unit (Figure 3) are situated within areas designated as Addicks loam and Verland silty clay loam. Both are poorly drained soil types and are generally not associated with substantial archaeological site locations because of this fact.

Table 1: Project Area Soil Characteristics (Wheeler 1976)

Abbreviation	Soil Name	Landform	Slope	Drainage	Description
Ad	Addicks loam	Flats	0 to 1%	Poorly drained	0-11 in; black loam 11-23 in; dark gray loam 23-49 in; light gray loam 49 in +; light gray loam with yellow/yellowish brown mottles
Am	Aldine very fine sandy loam	Flats and Pimple Mounds	0 to 1%	Poorly drained	0-5 in; dark grayish brown very fine sandy loam 5-10 in; grayish brown v. fine sand loam 10-19 in; yellowish brown loam 19-30 in; gray clay with yellowish brown and red mottling 30-60 in; light gray loam
AtB	Atasco fine sandy loam	Terraces	1 to 4%	Moderately well drained	0-5 in; dark grayish brown fine sandy loam 5-16 in; light yellowish brown fine sandy loam 16-19 in; brownish yellow sandy clay loam with fine sandy loam 19-60 in; yellowish brown clay and gray clay with yellowish brown and red mottling
Be	Bernard-Edna Complex	Meander scrolls	1 to 2%	Poorly drained	<u>Bernard</u> 0-6 in; dark gray clay loam 6-54 in; dark gray clay 54 in +; gray clay with yellowish brown mottles and calcium carbonate concretions
					<u>Edna</u> 0-10 in; dark grayish brown fine sandy loam 10-44 in; gray and olive gray clay 44 in +; gray sandy clay
Md	Verland silty clay loam	Meander	0 to 1%	Poorly drained	0-7 in; dark grayish brown silty clay loam 7-20 in; gray silty clay 20-50 in; dark gray clay 50-72 in; mottled gray, olive yellow, and brownish yellow clay
Ur	Urban land	Disturbed	n/a	n/a	n/a
W	Water	n/a	n/a	n/a	n/a

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1.4 CURRENT LAND USE

Although very little land is undeveloped within the La Porte 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 (Griffith et al. 2004:74-75).

1.5 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 42°F and average high is 92°F; 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 (Harris County Weather 2012; Wheeler 1976:2, 59).

1.6 BACKGROUND RECORDS REVIEW

A review of known archaeological sites and known resources within a 0.5 mile search radius of the project area was conducted according to the Texas Historical Commission's (THC) online Texas Archaeological Sites Atlas (Figure 2). It also includes a review of Native American tribes with a vested interest in Harris County, as well as a brief overview of the history of the area.

1.7 PREVIOUS INVESTIGATIONS

A review of cultural resources available on the online Texas Archaeological Sites Atlas and National Register of Historic Places was conducted on September 5, 2012 to determine what, if any, previously recorded archaeological sites or National Register properties (NRHP) were within the 0.5 mile search radius. There are no known historic buildings or districts located in proximity to the project area. The San Jacinto Battlefield and Monument, a National Historic Landmark, is located more than 2 miles to the northwest (Figure 2).

A state historic marker (number 10727) is situated within the 0.5 mile area used for the documentary review. It is more than 2000 feet northwest of the project facility boundary and almost one mile from the direct area of proposed construction (Figure 2). Now surrounded by modern industrial / chemical facilities and tanks, it is a centennial marker erected in 1936 to show the past location of Arthur and Margaret McCormick's home. Pioneers during the Texas Revolution, the marker states both died at the location: Arthur in 1825 and Margaret in 1854 when the home was burned to the ground. Because the original building no longer stands, it

cannot be designated a historic property and the location will not be visually impacted in any way by the proposed development.

Three prehistoric sites are located within the 0.5 mile assessment area: 41HR260, 41HR261, and 41HR613 (Figures 3 and 4). All three are prehistoric shell middens located on the shoreline of Upper San Jacinto Bay and undisturbed archaeological deposits associated with these sites that would meet the criteria for listing in the NRHP are not expected to be directly impacted by the proposed plant improvements, based on the types of materials associated with these sites, their distance from the proposed project activities and the level of existing land disturbance. The Texas Archeological Sites Atlas does not state whether the three sites are NRHP-eligible historic properties. A direct investigation of the three localities was not warranted given their distance from the proposed project activities. The documentation on file indicates, if intact, that Sites 41HR260 and 41HR613 are potentially eligible for listing on the NRHP. Site 41HR261, however, is stated as having been destroyed by 1988 and therefore would not be a NRHP-eligible historic property.

According to the online data at the Texas Archeological Site Atlas, archaeological sites 41HR260 and 41HR261 were identified during a Galveston Bay Survey conducted by McGuff and Thomas in 1973. Site 41HR260 was identified as a thin shell midden that extends for 75 feet along the shoreline. It is approximately 2 to 3 inches thick, and is situated on top of charcoal and clay daub. Sand tempered pottery was also noted at the site. The materials identified and the thin depth of the deposit indicates that Site 41HR260 was used as a food gathering area for a relatively short period of time by prehistoric Native American groups within the last 2,000 years (after ceramic technology was developed). Based on the types of materials identified, this site type is generally limited to close proximity to the shoreline (where the food source was located). It would therefore not be expected to extend inland to the extent of the proposed land alterations that are associated with the Equistar project activities.

Site 41HR261 was also a shell midden identified during the 1973 McGuff and Thomas survey; it covered approximately 10 by 600 feet along the shoreline. A majority of the site was believed to be below the water level, and no additional cultural materials were noted. The form online at the Texas Archeological Site Atlas for Site 41HR613 notes that Site 41HR261 was completely destroyed by erosion as of the summer of 1988. It is therefore not a potential project concern.

Finally, the Texas Archeological Site database states Site 41HR613 was initially identified during the 1960s, but revisited in 1988 by R. G. Moore Archaeological Consulting. The site is a large, but thin (stated as approximately "5 shell" [probably 3-4 inches] thick) shell midden with large mammal bones also visible. Lithic debitage associated with stone tool making from an unknown prehistoric Native American time period was observed on the beach nearby. The site was measured as being 260 to 330 feet wide along the shoreline and was visible in the exposed cut bank extending from 7.9 to 11.8 inches below the original ground surface. The record notes that fill added to the adjacent industrial complex puts the site at 20 to 25 feet below the current

ground surface. Although 41HR613 is the closest site to proposed land alterations associated with the project (approximately 2000ft [600m] distant from the proposed cooling tower project component shown in Figure 3), like 41HR260 the nature of the site and its thin deposit indicates that it was primarily associated with food gathering during a relatively short period of time and therefore would not be expected to extend far inland. In addition, the observation that the site lies more than 20 feet below the existing industrial site grade indicates that the project activities will not impact the natural soil surface with which it is associated, as the foundations for the proposed cooling towers are expected to extend six feet in depth (see Section 1.1).

The Texas Archeological Site Atlas also records nine cultural resource surveys within the 0.5 mile search area encircling the total facility boundary (Figure 4). These include a large shoreline survey contracted in 1994 by the Vicksburg Army Corps of Engineers, which encompasses the three known archaeological sites discussed above (SUR COE-VD 06/94). The others include: two 1979 Vicksburg Army Corps of Engineers surveys of pipeline corridors, including the right-of-way directly east of the proposed project area; two Federal Highways Administration surveys (in 1975 and 1986) of State Highway 225 to the south (SUR TDHPT 07/75 and RESUR FHWA 08/86); and a number of surveys required in 2011 by the Vicksburg Army Corps of Engineers at lands to the northwest (SUR USACE VD 06/11 and SUR HCFCO 01/02). Outside of the archaeological sites identified above, none of these surveys resulted in new archaeological concerns being identified.

1.8 TRIBAL COORDINATION DATA

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

1.9 HISTORY OF THE EQUISTAR CHEMICALS LA PORTE FACILITY

Since 1959, 43 units have operated at the current Equistar Chemicals La Porte Facility. Twenty-six (26) of these units were constructed prior to 1980; only eight of these units either do not have shut down dates available or are still in use. In 1996, five units were demolished: Unit AB-1 “A & B”, built in 1959 and shut down in 1981; Units AB-1 “C” and AB-1 “D” were both built in 1960 and shut down in 1993; the Linear Unit, constructed in 1963 and shut down in 1971; and the Polypor Unit was started in 1975 and shut down in 1994. The following year, five units became Millennium Petrochemicals, while 16 became part of the Equistar Facility. The overall history of the facility is shown in Table 3.

Table 3: Summary of Operational History at Equistar Chemical’s La Porte Facility

START-UP	SHUT-DOWN	UNIT	ADDITIONAL COMMENTS
1959	1981	AB-1 "A & B"	Demolished in 1996
	1999	"A" Boiler	Became Equistar Facility in December 1997
	2002	"B" Boiler	n/a
	n/a	"C" Boiler	n/a
1960	1993	AB-1 "C"	Demolished in 1996
	1993	AB-1 "D"	Demolished in 1996
1963	1971	Linear (sol'n process)	Demolished in 1996
	1999	Linear "A & B"	Became Equistar Facility in December 1997
1965	1999	Linear "C & D"	Became Equistar Facility in December 1997
1966	n/a	AB-2 "E & F"	Became Equistar Facility in December 1997
	2000	AB-2 "G"	Became Equistar Facility in December 1997
	2000	AB-2 "H"	Became Equistar Facility in December 1997
1968	1999	Linear "E & F"	Became Equistar Facility in December 1997
1970	n/a	Vinyl Acetate ("A & B")	Became Millennium Petrochemicals in March 1997
	1999	Linear "A & B" Conversion	Became Equistar Facility in December 1997
	n/a	"G" Boiler	n/a
1971	2000	Solvay (Petro) S-2	n/a
1972	1978-1979 (?)	Alcohol Whse.	n/a
1974	1999	Linear "C & D" Conversion	Became Equistar Facility in December 1997

START-UP	SHUT-DOWN	UNIT	ADDITIONAL COMMENTS
	n/a	Vinyl Acetate Debottleneck CO2 System Catalyst Change	Became Millennium Petrochemicals in March 1997
1975	1994	Polypor	Demolished in 1996
1977	2000	NPCC (Petro) S-1	Became Equistar Facility in December 1997
1978	n/a	AB-3	n/a
	2002	Ethylene Recovery Unit	Became Equistar Facility in December 1997
1979	n/a	Vinyl Acetate Expansion	Became Millennium Petrochemicals in March 1997
	n/a	"H" Boiler	n/a
1980	n/a	Acetic Acid	Became Millennium Petrochemicals in March 1997
	n/a	Polypor expansion (CinCat)	n/a
1981	n/a	AB-3 Debottleneck	Became Equistar Facility in December 1997
1983	n/a	PAO Unit	Ownership chain: Ethyl, Albemarle, Amoco (operated by Millennium)
1987	n/a	Syngas acquisition	Became Millennium Petrochemicals in March 1997
1991	n/a	QE-1	Became Equistar Facility in December 1997
1996	n/a	QE -1 - 9th Furnace	Became Equistar Facility in December 1997
1996	n/a	Q-1	Became Equistar Facility in December 1997
1999	n/a	MRU(permitted AB-III & ERU)	Became Equistar Facility in December 1997
2000	n/a	XL Unit	n/a
n/a	1999	"D" Boiler	n/a
	1999	"E" Boiler	n/a
	1999	"F" Boiler	n/a
	2000	AB2 G Line	n/a
	2000	AB2 H Line	n/a
	2001	AB2 E Line	n/a
	2002	AB2 F Line	n/a

1.10 LOCAL HISTORY

The town of La Porte was founded in 1892 as a real estate venture on the shores of Trinity Bay. Within eight years the town had 537 residents and was the original home of St. Mary's Seminary. In 1915, the town was not only hit by a major hurricane, but a major fire destroyed all of the businesses in the downtown area. The local beach, Sylvan Beach, and the tourist industry carried the town economically until World War II. After the war, the petrochemical industry and shipyards offered new economic avenues to local residents (Kolodzy 2012).

In 1954, the town was further propelled into the future with the La Porte-Baytown tunnel and the Lyndon B. Johnson Space Center and Bayport Channel. The population continued to grow over the decades, to just over 7,000 by 1970. In 1980, the nearby town of Lomax was annexed by La Porte, adding to the town's population growth. During the 1990s, when the population had reached approximately 28,000 residents, plans were made to revitalize Sylvan Beach and the tourism industry. By the turn of the century, there were 31,880 residents living in the town of La Porte (Kolodzy 2012).

Approximately two miles northwest of the project area is the San Jacinto Battleground State Historic Site. The site was listed as a National Historic Landmark on October 15, 1966, and includes the battlefield, monument, and Battleship *Texas*. The Battle of San Jacinto is significant because it culminated in the defeat of General Antonio Lopez de Santa Anna and the Mexican army by General Sam Houston and the Texan army on April 21, 1836. This event paved the way for Texas's independence from Mexico. The site features a monument observation floor, the San Jacinto Museum of History, the Battleship *Texas*, marsh restoration and boardwalk, and a recreation area (Texas Parks and Wildlife Department 2012). Earlier this year for Global Care Day, employees from nearby LyondellBasell's La Porte Complex donated time to the park by cleaning up existing rest areas and establishing new ones along the Monument Walking Trail, as well as building a new outdoor classroom for guided tours (LyondellBasell 2012).

1.11 RECORD REVIEW RESULTS

The project area is fully located within an active chemical processing plant with existing industrial buildings and infrastructure that was first constructed in 1959. The direct Area of Potential Effect (APE) where ground disturbing activities would occur for the expansion project is limited to three (3) areas, all within the existing Olefins Unit, totaling approximately 1.6-acres. In addition, there are six (6) areas totaling approximately 32.0-acres within the facility boundary that are periodically used for construction material laydown and extra work space that will also be used in association with this project. These areas are illustrated in Figure 3. The indirect APE is limited to visual effects from construction of the cooling towers and furnace to buildings and archaeological sites within direct visual sight of the completed facility, which given the existing terrain and placement of industrial buildings, is estimated to be less than one quarter

mile.

Given the level of extensive industrial development covering the proposed construction area, subsurface investigations throughout the direct APE were not warranted. The existing geologic and soil conditions as described in Section 1.3 indicate low archaeological site potential exists within the study area due to existing land-altering activities and originally a large percentage of poorly draining soils. The records review also indicates that there was little potential for the direct APE to contain undisturbed archeological resources that would meet the Section 106 criteria of being eligible for listing on the National Register of Historic Places.

Three known archaeological sites are situated more than 1650 feet (500 meters) to the east of the proposed land-altering activities. Each is a thin prehistoric shell midden identified along the shoreline of Upper San Jacinto Bay and lie well outside the direct APE (Figure 3). Documentation on file indicates, if intact, that Sites 41HR260 and 41HR613 are potentially eligible for listing on the NRHP. These sites are associated with littoral food resource gathering and would not be expected to extend inland to the proposed project activities. Site 41HR261, however, is stated as having been destroyed by 1988 and therefore would not be a NRHP-eligible historic property.

The archaeologists who examined the closest site, 41HR613, observed that up to 20 feet of fill was added to the adjacent area during construction of the facility, indicating that the proposed project activities would be unlikely to reach the depth of the original soil level associated with these littoral sites. In addition, no historic buildings outside the facility that could be visually affected by the project are known to lie within the indirect APE. Based on these data, it is the opinion of URS that the proposed project will not impact historic properties that are eligible for inclusion in the National Register of Historic Places. We therefore recommend that a finding of No Historic Properties Present or Affected be applied to this undertaking.

1.12 REFERENCES

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LyondellBasell

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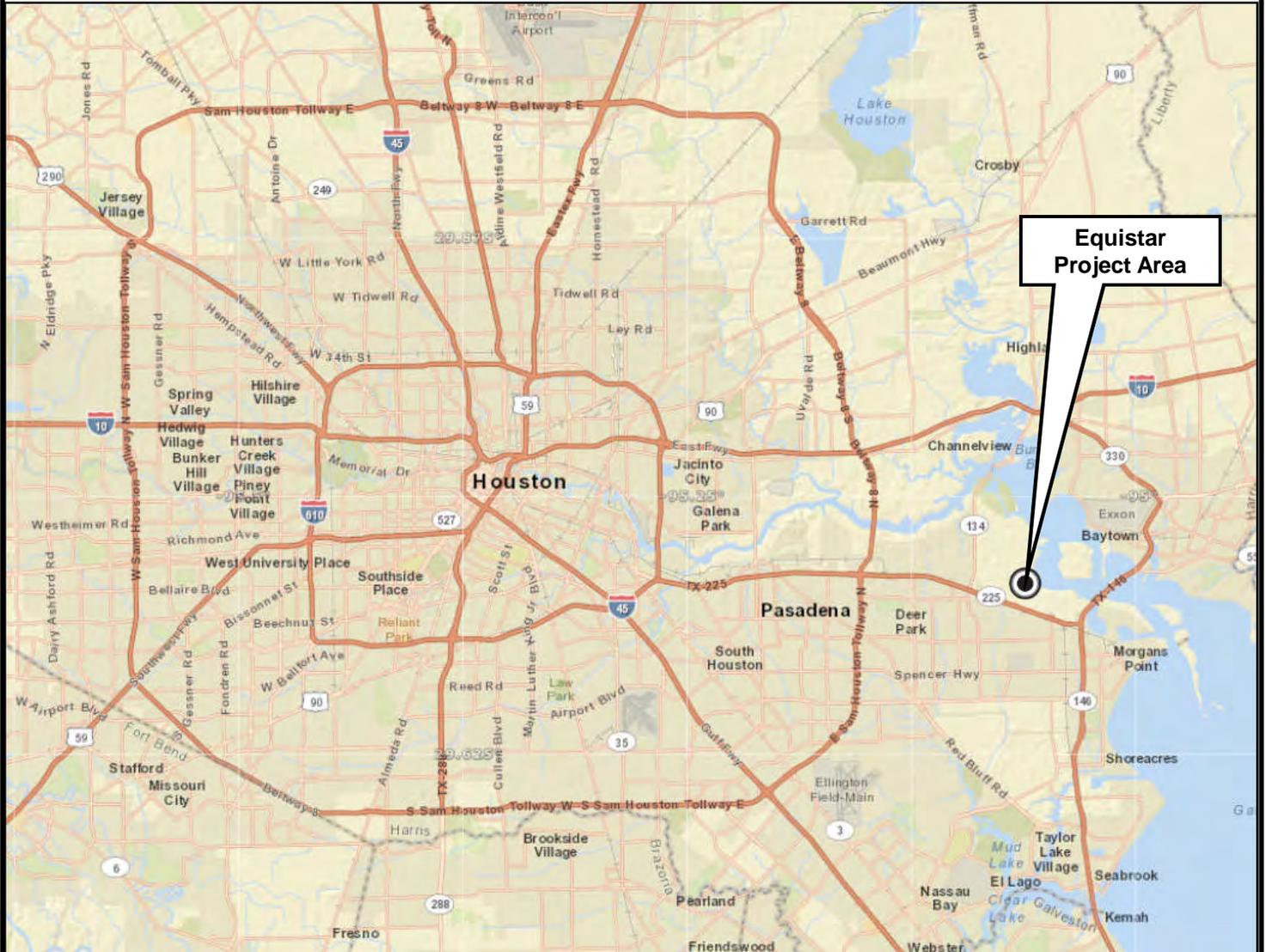
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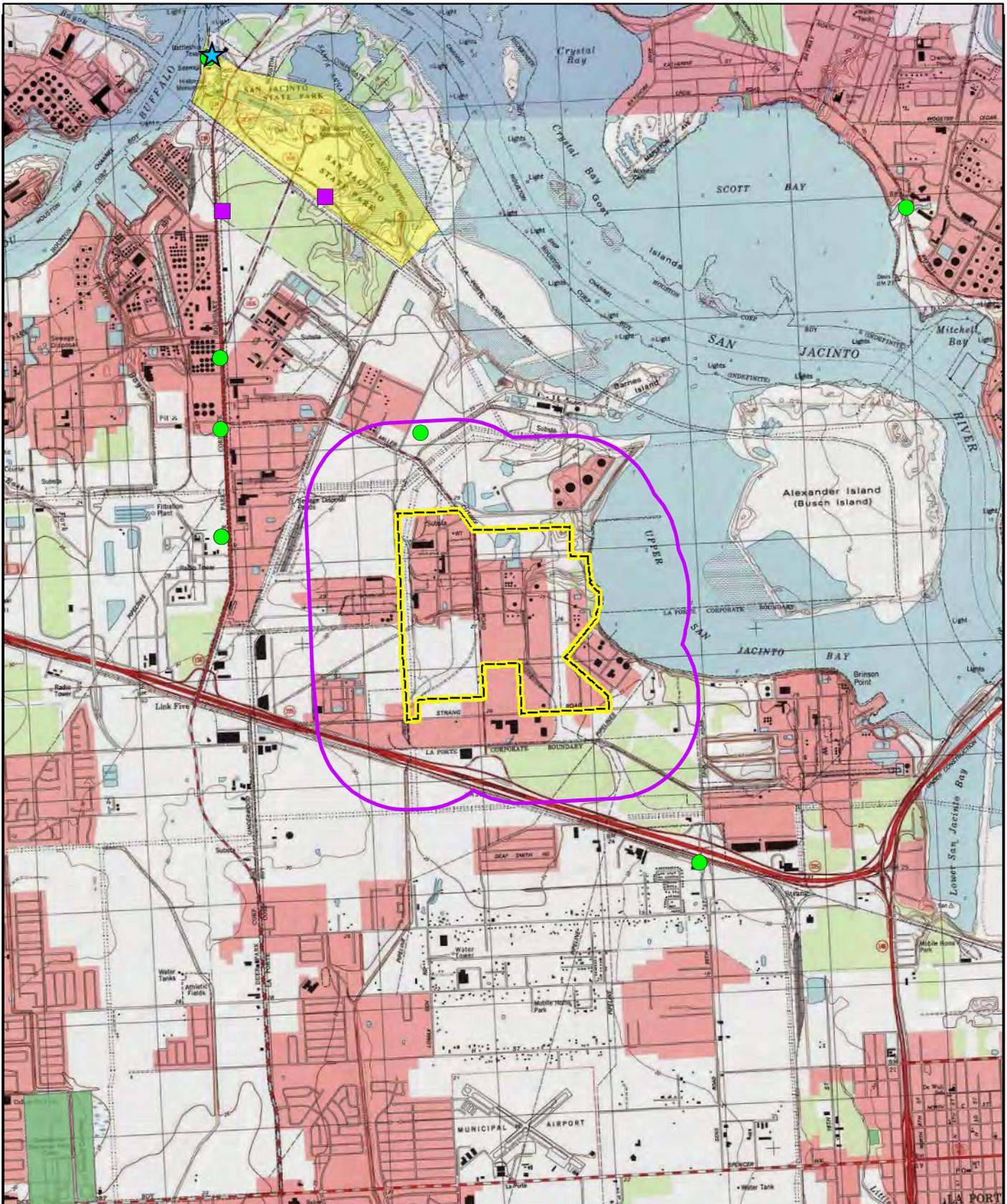
FIGURES



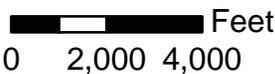
CLIENT	LyondellBasell		
PROJECT	Equistar QE-1 Expansion Project		
REVISION NO	DES BY		
SCALE	As shown	DR BY	JP 7/6/2012
FILE		CHK BY	BSM 7/6/2012

TITLE	Project Location	
	WO	
	FIGURE	1

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-  National Register Property
-  National Register District
-  Neighborhood Surveys
-  Cemeteries
-  Museums
-  Half-Mile Buffer
- Historical Markers
- Property Boundary



Title: Texas Historic Sites Atlas			
Project: QE-1 Unit Expansion Equistar – La Porte Complex			
Client: Equistar Chemicals Company			
Drawn by: AM	Date: 07/2012	Project No.: 25014882	Figure 2

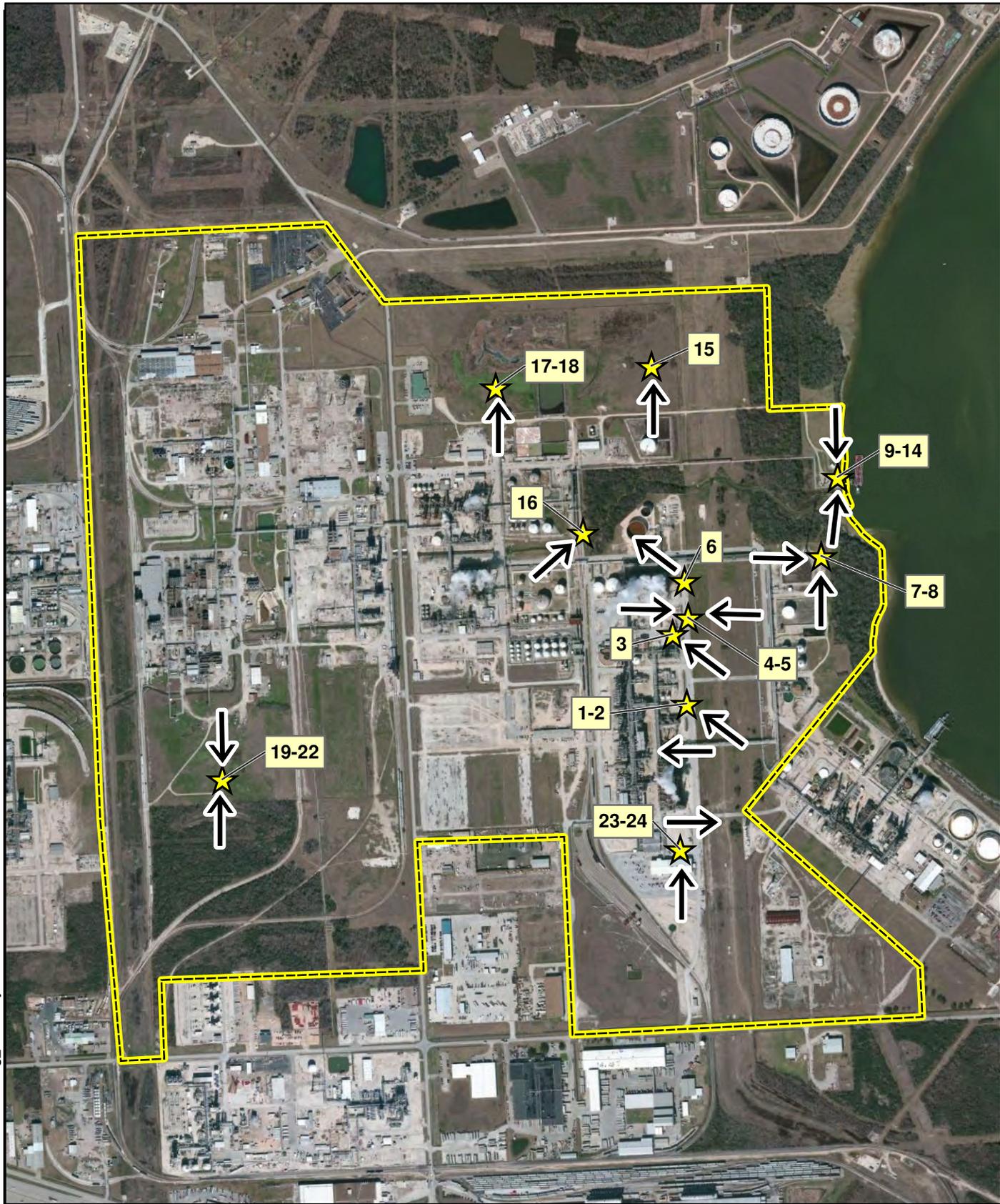
Source: Texas Historical Commission, Texas Historic Sites Atlas

Map redacted.

Map redacted.

PHOTOGRAPHIC LOG

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-  Property Boundary
-  Olefin Unit
-  Proposed Construction Limits (Ground Disturbance)
-  Construction Material Laydown and Extra Workspace (Existing)



0 500 1,000 Feet

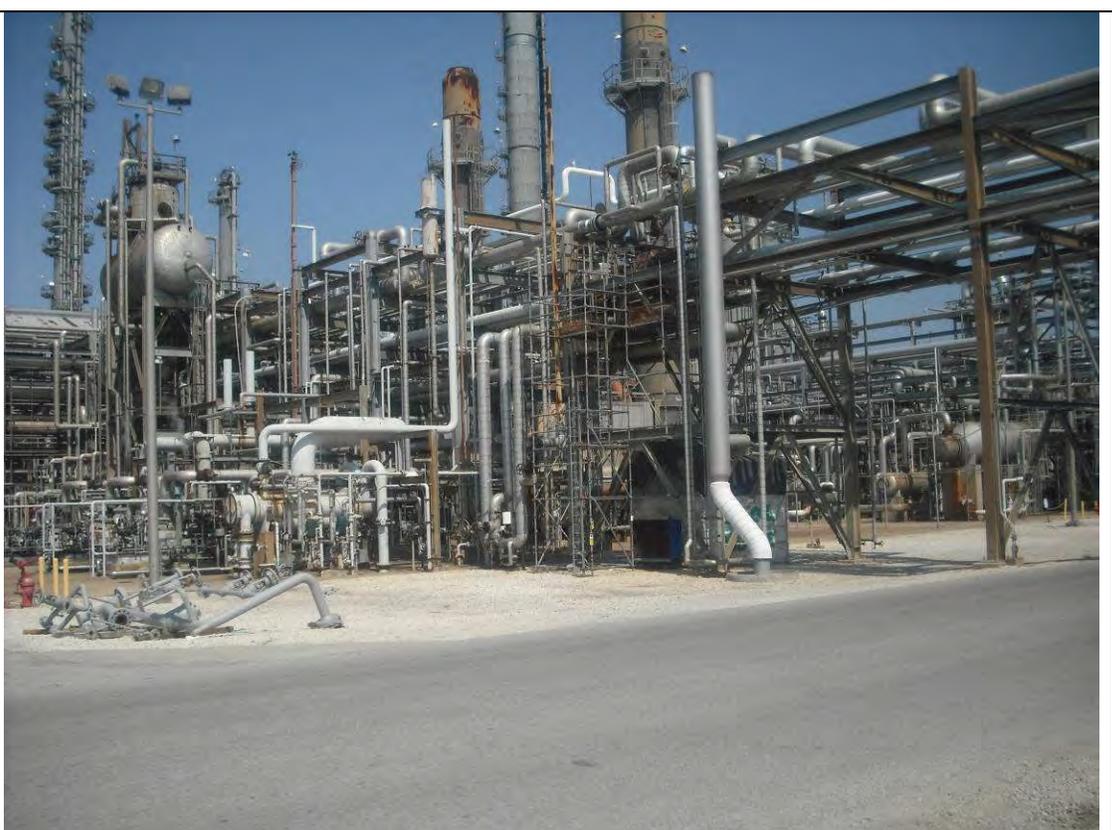
Title:				Photographic Key			
Project:				QE-1 Unit Expansion Equistar – La Porte Complex			
Client:				Equistar Chemicals Company			
Drawn by:	Date:	Project No.:		Drawn by:	Date:	Project No.:	
AM	07/2012	25014882					Figure 2-1

Client Name: Equistar Chemicals, L.P.	Site Location: La Porte Olefin Expansion Project	Project No. 25014882
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Date 8/18/2012	Photo No. 1
Direction Photo Taken: West	

| **Description:** Furnace site. |

Date 8/18/2012	Photo No. 2
Direction Photo Taken: Northwest	

| **Description:** Furnace site. |

Client Name: Equistar Chemicals, L.P.	Site Location: La Porte Olefin Expansion Project	Project No. 25014882
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Date 8/18/2012	Photo No. 3
Direction Photo Taken: Northwest	

Description:

Proposed ammonia tank site.



Date 8/18/2012	Photo No. 4
Direction Photo Taken: West	

Description:

Proposed ammonia tank site.



Client Name: Equistar Chemicals, L.P.		Site Location: La Porte Olefin Expansion Project	Project No.: 25014882
Date 8/18/2011	Photo No. 5		
Direction Photo Taken: East			
Description: Maintained pipeline ROW adjacent to Proposed ammonia tank site.			

Date 8/18/2011	Photo No. 6		
Direction Photo Taken: Northwest			
Description: Proposed cooling tower site.			

Client Name:

Equistar Chemicals, L.P.

Site Location:

La Porte Olefin Expansion Project

Project No.

25014882

Date
6/7/2012**Photo No.**
7**Direction Photo Taken:**

North

Description:

Mixed woodland habitat.

**Date**
6/7/2012**Photo No.**
8**Direction Photo Taken:**

East

Description:

Area of maintained grassland and a narrow strip of mixed woodland.



Client Name: Equistar Chemicals, L.P.	Site Location: La Porte Olefin Expansion Project	Project No.: 25014882
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Date 6/7/2012	Photo No. 9
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Direction Photo Taken:
Northeast

Description:
Shoreline at the dock site.



Date 6/7/2012	Photo No. 10
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Direction Photo Taken:
Northeast

Description:
Upper San Jacinto Bay shoreline.



Client Name: Equistar Chemicals, L.P.	Site Location: La Porte Olefin Expansion Project	Project No.: 25014882
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Date 6/7/2012	Photo No. 11
Direction Photo Taken: North	



Description:

Mixed woodland habitat on the northeast or southwest corner of the property.

Date 6/7/2012	Photo No. 12
Direction Photo Taken: South	



Description:

Southern shoreline of the river.

Client Name: Equistar Chemicals, L.P.	Site Location: La Porte Olefin Expansion Project	Project No.: 25014882
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Date 6/7/2012	Photo No. 13
Direction Photo Taken: South	



Description: Southern shoreline of the river.

Date 6/7/2012	Photo No. 14
Direction Photo Taken: South	



Description: Southern shoreline to the river mouth.

Client Name: Equistar Chemicals, L.P.	Site Location: La Porte Olefin Expansion Project	Project No. 25014882
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Date 6/7/2012	Photo No. 15
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Direction Photo Taken:

North

Description:

Grassland habitat with tallow trees.



Date 6/7/2012	Photo No. 16
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Direction Photo Taken:

Northeast

Description:

Mixed forest and riverine habitat.



Client Name: Equistar Chemicals, L.P.	Site Location: La Porte Olefin Expansion Project	Project No.: 25014882
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Date 6/7/2012	Photo No. 17
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Direction Photo Taken:
North

Description:
Area of maintained grassland.



Date 6/7/2012	Photo No. 18
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Direction Photo Taken:
North

Description:
Grassland habitat.



Client Name: Equistar Chemicals, L.P.	Site Location: La Porte Olefin Expansion Project	Project No.: 25014882
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Date 6/7/2012	Photo No. 19
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Direction Photo Taken:
Southeast

Description:
Cleared area of forest.



Date 6/7/2012	Photo No. 20
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Direction Photo Taken:
Southwest

Description:
Mixed woodland habitat.



Client Name: Equistar Chemicals, L.P.	Site Location: La Porte Olefin Expansion Project	Project No.: 25014882
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Date 6/7/2012	Photo No. 21
Direction Photo Taken: Southeast	

Description: Grassland and mixed woodland habitat



Date 6/7/2012	Photo No. 22
Direction Photo Taken: Northeast	

Description: Mowed grassland habitat with tallow trees.



Client Name: Equistar Chemicals, L.P.	Site Location: La Porte Olefin Expansion Project	Project No.: 25014882
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Date 8/18/2012	Photo No. 23
Direction Photo Taken: East	

Description:
The proposed furnace site.



Date 8/18/2012	Photo No. 24
Direction Photo Taken: North	

Description:
The proposed furnace site.



RESUMES



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 CO₂ 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 Liquefied 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 Columbia, 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



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

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Lauren.Poche@urs.com