



# **Draft Resource Report 4 – Rev 0 Cultural Resources**

FERC DOCKET NO. PF09-11-000

USAG-UR-SGREG-000006

December 2011







ALASKA PIPELINE PROJECT
DRAFT RESOURCE REPORT 4
CULTURAL RESOURCES

FERC Docket No. PF09-11-000

# Notes:

Yellow highlighting is used throughout this draft Resource Report to highlight selected information that is pending or subject to change in the final report.



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### **ACRONYMS AND ABBREVIATIONS**

§ Section

AAC Alaska Administrative Code

AGPPT Alaska Gas Pipeline Producers Team AHPA Alaska Historic Preservation Act

AMP Alaska Mainline milepost

ANGPA Alaska Natural Gas Pipeline Act

APE Area of Potential Effect APP Alaska Pipeline Project

BLM U.S. Bureau of Land Management

bscfd billion standard cubic feet per day (standard conditions: 14.73 pounds per square

inch absolute and 60° Fahrenheit)

C.F.R. Code of Federal Regulations

CPCN Certificate of Public Convenience and Necessity FERC U.S. Federal Energy Regulatory Commission

GTP Gas Treatment Plant MLBV mainline block valve

MP milepost N/A not applicable

NEPA National Environmental Policy Act
NHPA National Historic Preservation Act
NRHP National Register of Historic Places
NWA Northwest Alaskan Pipeline Company

OHA Alaska Department of Natural Resources, Division of Parks and Outdoor

Recreation, Office of History and Archaeology

PA Programmatic Agreement

PMP Point Thomson Gas Transmission Pipeline milepost

pt. Part

PT Pipeline Point Thomson Gas Transmission Pipeline

PTU Point Thomson Unit

SHPO State Historic Preservation Officer(s)/Offices

SPCO State Pipeline Coordinator's Office TAPS Trans-Alaska Pipeline System

THPO Tribal Historic Preservation Officer(s)/Office

U.S.C. United States Code



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# 4.0 RESOURCE REPORT 4 – CULTURAL RESOURCES

The location information, facility descriptions, resource data, construction methods, and mitigation measures presented in this report are preliminary and subject to change. APP is conducting engineering studies, environmental resource surveys, agency consultations, and stakeholder outreach efforts to further refine and define the details of the Project.

The Project described in this resource report is being designed and developed based on estimated volumes of natural gas from projected shipper commitments. If final shipper commitments are significantly different from those estimated, the Project may be adjusted accordingly.

## 4.1 INTRODUCTION

TransCanada Alaska Company, LLC and Foothills Pipe Lines Ltd., working with ExxonMobil Alaska Midstream Gas Investments LLC, are developing a joint project to treat, transport, and deliver natural gas from the Alaska North Slope (ANS) to pipeline facilities in Alberta, Canada for markets in the contiguous United States and North America. This joint project is referred to as the Alaska Pipeline Project (APP or Project)<sup>1</sup>.

As required by Title 18 Code of Federal Regulations (C.F.R.) Section (§) 380.12 and consistent with the Alaska Natural Gas Pipeline Act of 2004 (ANGPA), APP has prepared this draft resource report in support of its application to the U.S. Federal Energy Regulatory Commission (FERC) for a Certificate of Public Convenience and Necessity (CPCN) under Section 7(c) of the Natural Gas Act (NGA) to construct, own, and operate the portion of the Project in Alaska. This draft resource report pertains only to that portion of the Project in Alaska, and unless the context otherwise requires, references in this draft resource report to APP refer only to the Alaska portion of the Project<sup>2</sup>.

As shown in Figure 1.1-1 of Resource Report 1, APP will comprise the following major components<sup>3,4</sup>:

• The Point Thomson Gas Transmission Pipeline (PT Pipeline)<sup>5</sup>, consisting of approximately 58.4 miles of buried 32-inch-diameter pipeline from the Point Thomson Unit (PTU) to an APP Gas Treatment Plant (GTP) and associated facilities near Prudhoe Bay;

Depending on the context, the term APP refers to the joint project or, collectively, to the sponsoring entities.

<sup>&</sup>lt;sup>2</sup> The Canadian Section refers to the portion of the Project from the Yukon border to the pipeline facilities in Alberta, Canada.

In previous FERC filings, the Point Thomson Gas Transmission Pipeline was referred to as Zone 1, the Gas Treatment Plant was referred to as Zone 2, and the Alaska Mainline was referred to as Zone 3 of the Alaska-Canada Pipeline.

As part of the Project, APP proposes to construct compressor stations, meter stations, various mainline block valves (MLBVs), pig launcher and receiver facilities, as well as associated ancillary and auxiliary infrastructure, including additional temporary workspace, access roads, helipads, construction camps, pipe storage areas, contractor yards, borrow sites, and dock modifications at Prudhoe Bay.

The origin of the PT Pipeline is assumed to be located at an outlet from the PTU. The final length may vary depending on the final gas development plan for the PTU.



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- The GTP, which will have the capacity to process gas received from the Point Thomson Unit and the existing Central Gas Facility (CGF) on the Prudhoe Bay Unit (PBU) in order to deliver an annual average capacity up to 4.5 billion standard cubic feet per day (bscfd) (standard conditions: 14.73 pounds per square inch absolute and 60° Fahrenheit) of sales quality gas; and
- The Alaska Mainline, consisting of approximately 745.1 miles of 48-inch-diameter pipeline, all of which is buried except as otherwise described in this Resource Report. The Alaska Mainline extends from the GTP to the Alaska-Yukon border east of Tok, Alaska, and includes provisions for intermediate gas delivery points within Alaska.

Table 4.1-1 lists the FERC's filing requirements and additional information applicable to Resource Report 4 taken from FERC's Guidance Manual for Environmental Report Preparation:

TABLE 4.1-1	
Alaska Pipeline Project Resource Report 4 Filing Requirements Checklist	
Requirement	Where Found In Document
FERC REQUIREMENTS FROM 18 CODE OF FEDERAL REGULATIONS § 380.12	
<ol> <li>Initial cultural resources consultation and documentation, and documentation with Native Americans. (§ 380.12(f)(1)(I) &amp; (2))</li> </ol>	Sections 4.2, 4.3, 4.4, and 4.5
2. Overview/Survey Report(s). (§ 380.12(f)(1)(ii) & (2)])	Appendix 4D
See § 380.14 for specific procedures	
<ul> <li>For the offshore area this will usually require completion of geophysical and other underwater surveys before filing.</li> </ul>	
OTHER INFORMATION OFTEN MISSING AND RESULTING IN DATA REQUESTS PER FERC'S GUIDANCE MANUAL FOR ENVIRONMENTAL REPORT PREPARATION	
Identify the project Area of Potential Effect (APE) in terms of direct or indirect effects to known cultural resources.	Section 4.2.1
<ul> <li>Provide a project map with mileposts, clearly showing boundaries of all areas surveyed (right- of-way, extra work areas, access roads, etc.) and to be surveyed with corridor widths clearly specified.</li> </ul>	To be filed at a later date
<ul> <li>Provide documentation of consultation with State Historic Preservation Offices (SHPOs), Tribal Historic Preservation Offices (THPOs), and applicable land managing agencies regarding the need for and required extent of cultural resource surveys.</li> </ul>	Sections 4.2.1, Appendix 4B
Provide a project-specific Ethnographic Analysis (can be part of Overview/Survey Report).	Section 4.10, Appendix 4E to be filed at a later date
Identify by mileposts any areas requiring survey for which the landowner denied access.	To be filed at a later date
<ul> <li>Provide written comments on the Overview and Survey Reports, if available, from the SHPOs or THPOs, as appropriate, and applicable land-managing agencies.</li> </ul>	N/A
<ul> <li>Provide a Summary Table of completion status of cultural resource surveys, and SHPO or THPO and land managing agency comments on the reports.</li> </ul>	Sections 4.2, 4.3, 4.8
<ul> <li>Provide a Summary Table of identified cultural resources, and SHPO or THPO and land managing agency comments on the eligibility recommendations for those resources.</li> </ul>	Sections 4.2, 4.3, Appendix 4C
<ul> <li>Provide a brief summary of the status of Alaska Native consultation, including copies of all related correspondence and records of verbal communications.</li> </ul>	Section 4.4, Appendix 4B, Appendix 1L
Provide a schedule for completing any outstanding cultural resource studies.	Section 4.8
<ul> <li>Provide an Unanticipated Discoveries Plan for the project area, referencing appropriate state statues.</li> </ul>	Section 4.9, Appendix 4A to be filed at a later date



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Mileposts (MPs) are commonly used markers along linear projects, such as APP. Where necessary to distinguish the PT Pipeline from the Alaska Mainline, APP has prefixed its MP identifier with a PT Pipeline MP (PMP) or an Alaska Mainline MP (AMP). This convention is used in APP's application and supporting maps and alignment sheets (refer to Appendix 10 of Resource Report 1) to identify resources and features along the respective pipeline routes.

The purpose of Resource Report 4 is to describe how APP's facilities will be designed and constructed to reduce potential impacts to cultural resources. Section 106 of the National Historic Preservation Act (NHPA, United States Code [U.S.C.] 470) requires federal agencies, such as the FERC, to take into account the effects of their undertakings on historic properties, and to afford the Advisory Council on Historic Preservation an opportunity to comment. Historic properties are defined as cultural resources that are listed in, or eligible for listing in, the National Register of Historic Places (NRHP) (36 C.F.R. Part [pt.] 60). The Advisory Council on Historic Preservation's regulations for implementing Section 106 (Title 36 C.F.R. pt. 800, as amended 2004) require federal agencies to:

- Consult with the State Historic Preservation Office (SHPO), federally recognized tribes, and other consulting parties for undertakings with the potential to affect historic properties;
- · Identify any historic properties that may be affected by an undertaking; and
- Avoid, minimize, or mitigate adverse effects on historic properties.

Because APP is under the jurisdiction of the FERC and other federal agencies, the Project is subject to review under Section 106 of the NHPA.

The National Environmental Policy Act (NEPA), as amended (42 U.S.C. §§ 4321-4347) requires federal agencies to determine whether projects will have a significant effect on the quality of the human environment. NEPA also establishes the policy of coordinating compliance with other laws including the NHPA.

Legislation that protects historic properties and other cultural resources in the state of Alaska includes the Alaska Historic Preservation Act of 1971 (AHPA: Alaska Statute 41.35.010-41.35.240). The AHPA was enacted to locate, preserve, study, exhibit, and evaluate the historic, prehistoric, and archaeological resources of Alaska with the intent of preserving and protecting them from loss, desecration, and destruction so that the scientific, historic, and cultural heritage embodied in these resources may pass undiminished to future generations. The AHPA, however, only protects cultural resources located on state-owned or administered lands. Alaska Administrative Code (AAC) (11 AAC 16.010-16.090) establishes the Alaska Department of Natural Resources, Division of Parks and Outdoor Recreation, Office of History and Archaeology (OHA) as the administrator of the historic, prehistoric, and archaeological resources of the state. Furthermore, OHA is responsible for issuing the Alaska Cultural Resource Permit that authorizes the investigation, excavation, gathering, or removal of any historic, prehistoric, or archaeological resources from lands owned or administered by the state (as required under Alaska Statute 41.35.080 and 11 AAC 16.030). This permitting system establishes the qualifications for cultural resource professionals in the state of Alaska as well as the basic structure for survey and reporting on cultural resources investigations.

This resource report describes APP's efforts to assist the FERC in meeting its obligations under the NHPA and NEPA pursuant to the FERC regulations at 18 C.F.R. § 380.12(f) and 18 C.F.R. § 380.14.



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APP, as the FERC's non-federal representative, initiated the requisite consultations and conducted identification-phase cultural resource surveys of the Project footprint<sup>6</sup>. The results of the consultations and the surveys are summarized below. Documentation of the cultural resources consultations conducted to-date is provided in Appendix 1L of Resource Report 1. An outline of the cultural resources component of the Construction Unanticipated Discoveries Plan is provided as Appendix 4A. [Note: The Construction Unanticipated Discoveries Plan will be provided in the final report.] Table 4B-1 in Appendix 4B provides a summary of the consultations that have taken place with Alaska Native Organizations and Groups. APP's cultural resource survey report is contained in Appendix 4D, which has been filed under separate cover marked: "CONTAINS PRIVILEGED INFORMATION – DO NOT RELEASE." [Note: Aerial alignment sheets with cultural resources information will be provided in the final report under a separate cover and marked appropriately as "CONTAINS PRIVILEGED AND/OR CRITICAL ENERGY INFRASTRUCTURE INFORMATION – DO NOT RELEASE."]

# 4.2 CONSULTATIONS WITH STATE AGENCIES

# 4.2.1 ALASKA OFFICE OF HISTORY AND ARCHAEOLOGY, STATE HISTORIC PRESERVATION OFFICE

Table 4.2.1-1 lists the consultations that APP has conducted with the OHA. APP and its contractors have conducted informal consultations with the OHA since 2009. These informal consultations have primarily been associated with discussing survey methodologies in preparation for the start of cultural resources field investigations in 2010, the status of field investigations, surveys, and the overall Section 106 process. In a letter dated June 17, 2010, the OHA provided APP with its Field Archaeology Permit, authorizing APP's surveys on state lands. Discussions with OHA, the FERC, and other agencies with Section 106 responsibilities are underway to lay the framework to create a draft Programmatic Agreement (PA). The PA will address the Area of Potential Effect (APE), describe roles and responsibilities of consulting parties, establish review process and timelines, allow for review/clearance of project changes, and establish procedures for unanticipated discovery during construction.

		TABLE 4.2.1-1
	Summary of Con	Alaska Pipeline Project sultations with Alaska State Historic Preservation Office
Contact	Date Contacted	Summary
OHA and APP Staff	3/19/09	Meeting with the OHA to provide an update on APP, address questions from OHA staff, and discuss next steps for the Project.
OHA, BLM, and APP Staff	5/26/10	Joint meeting with OHA and the U.S. Bureau of Land Management (BLM) to discuss the Project and field survey protocols.
Myron Fedak (APP)	6/17/10	The OHA provided APP with its field archaeology permit.
Judith E. Bittner (OHA)	9/19/11 <sup>a</sup>	Survey report provided to OHA.
Multiple Agency and APP Staff	4/21/11	Joint meeting with the OHA, BLM, U.S. Army Corps of Engineers, U.S. Coast Guard, and U.S. Fish and Wildlife Service to discuss the Project, the FERC Section 106 process, and development of a PA and Construction Unanticipated Discoveries Plan.

The terms "Project area" and "Project footprint" are defined to include the project facilities and land requirements for construction and operation. The term "Project vicinity" is used to mean the area or region near or surrounding the Project area, and is subject to the context in which the term is used.



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		TABLE 4.2.1-1
	Summary of Con	Alaska Pipeline Project sultations with Alaska State Historic Preservation Office
Contact	Date Contacted	Summary
Judith E. Bittner (OHA)	8/31/11	Initial consultation letter requesting comments from the OHA on the Project.
		(SPCO) has established communications protocol that require transmittals to the ce. Therefore, the report and transmittal letter to the OHA were sent to the SPCO on

In a letter dated August 31, 2011, APP initiated formal consultation with the OHA for purposes of complying with Section 106 of the NHPA and requested input from the OHA regarding compliance with the relevant historic preservation laws. In a letter dated September 19, 2011, APP submitted its cultural resource survey report documenting the results of surveys that were completed in 2010 to the OHA for review and comment. Copies of correspondence between APP and OHA are provided in Appendix 1L of Resource Report 1. As of the writing of this draft report, APP has not received a response from the OHA. [Note: Copies of future correspondence with the OHA will be provided to the FERC in Appendix 1L of Resource Report 1 in the final report and supplemental filings as necessary.]

### 4.3 CONSULTATIONS WITH FEDERAL LAND MANAGING AGENCIES

September 20, 2011, and the SPCO subsequently transmitted them to the OHA.

### 4.3.1 U.S. BUREAU OF LAND MANAGEMENT

Table 4.3.1-1 includes consultations that APP has conducted with the U.S. Bureau of Land Management (BLM). APP's initial consultations with the BLM took place in 2010 (in a joint meeting with the OHA) and were primarily associated with discussing survey methodologies in preparation for the start of cultural resources surveys in 2010. In a letter dated June 18, 2010, the BLM provided APP with its Permit for Archaeological Investigations, which authorized APP "to conduct archeological work on Department of the Interior lands under the authority of the Archaeological Resources Protection Act of 1979, Antiquities Act of 1906, and the BLM's specific statutory and/or regulatory authority".

		TABLE 4.3.1-1
	Summary of Co	Alaska Pipeline Project Insultations with the U.S. Bureau of Land Management
Contact	Date Contacted	Summary
OHA, BLM, and APP Staff	5/26/10	Joint meeting with the OHA and the BLM to discuss the Project and field survey protocols.
Karen Brown (URS)	6/18/10	The BLM provided APP with its permit for archaeological investigations.
Mr. Robert King (BLM)	3/9/11	Survey report provided to BLM documenting only the results of surveys that were completed on BLM land. <sup>a</sup>



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	Summary of Co	Alaska Pipeline Project
Contact	Date Contacted	Summary
Multiple Agency and APP Staff	4/21/11	Joint meeting with the OHA, BLM, U.S. Army Corps of Engineers, U.S. Coast Guard, and U.S. Fish and Wildlife Service to discuss the Project, the FERC's Section 106 process, and development of a PA and Construction Unanticipated Discoveries Plan.
BLM and APP Staff	6/9/11	Meeting with BLM representative to discuss the Project, cultural resources survey approach, Geographic Information System data sharing, data management, field authorizations, and land status.
Mr. Robert King (BLM)	8/31/11	Initial consultation letter requesting comments from the BLM on the Project.

In a letter dated March 9, 2011, APP submitted its cultural resource survey report documenting the results of surveys that were completed in 2010 to the BLM for review and comment. In a letter dated August 31, 2011, APP, initiated formal consultation with the BLM for purposes of complying with Section 106 of the NHPA and requested input from the BLM regarding compliance with the relevant historic preservation laws. The BLM is the lead federal agency responsible for issuing the Right-of-Way Grant for the portion of the Project on federal land, and the BLM is coordinating that process with the other federal land managing agencies affected by the Project; therefore, copies of the August 31, 2011, letter were provided to the additional federal agencies (i.e., U.S. Fish and Wildlife Service; U.S. Department of Defense; U.S. Air Force; U.S. Army; U.S. Army Corps of Engineers; U.S. Bureau of Indian Affairs; and U.S. Coast Guard). Copies of correspondence between APP and the BLM are provided in Appendix 1L of Resource Report 1. As of the writing of this draft report, APP has not received a response from the BLM. [Note: Copies of future correspondence with the BLM will be provided to the FERC in Appendix 1L in Resource Report 1 the final report and supplemental filings as necessary.]

# 4.4 CONSULTATIONS WITH ALASKA NATIVE ORGANIZATIONS AND GROUPS

Consultations with Alaska Native Organizations and Groups have been initiated by both APP and the FERC. Table 4B-1 in Appendix 4B summarizes APP's Section 106 consultations with Alaska Native Organizations and Groups. These consultations are briefly summarized below.

In a letter dated June 15, 2011, the FERC initiated government-to-government consultation with all federally recognized tribal governments within the State of Alaska. The FERC requested that each tribe assess whether it might be directly affected by the Project, and to indicate whether the tribe would like to participate in government-to-government consultation.

In a letter dated September 15, 2011, APP initiated Section 106 consultations with 15 Alaska Native Organizations and Groups that might be directly affected by the Project, to request comments about the Project, including information about potential impacts on archaeological sites, burials, and traditional cultural properties. APP identified these groups based on discussions with the OHA and BLM. APP's Section 106 consultations with Alaska Native Organizations and Groups were sent to those who may be affected by the Project, or who may have historically occupied or used the Project vicinity, may attach religious or cultural significance to sites in the region, or may be interested in potential impacts on cultural resources. Copies of the Section 106 consultation letters that were sent to Alaska Native



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Organizations and Groups are included in Appendix 1L of Resource Report 1. [Note: Copies of future correspondence with Alaska Native Organizations and Groups, including any responses, follow-up contacts, and/or meetings, will be provided to the FERC in the final report and supplemental filings as necessary.]

In addition to the Section 106 consultations, APP contacted Alaska Native Organizations and Groups as part of its stakeholder outreach program between April 2010 and July 2011 to invite them to Leadership and Community Open House Meetings to learn more about the Project. Additional discussion of APP's stakeholder outreach program is provided in Resource Report 1 (Section 1.12).

## 4.5 CONSULTATIONS WITH OTHER INTERESTED PARTIES

Section 106 of the NHPA requires consultation with the public and with individuals and organizations that demonstrate an interest in the Project. So far no local historical groups or county/borough entities have been identified that warrant consultations for cultural resources concerns, however, APP has been in preliminary discussions with the North Slope Borough regarding cultural resources issues. In addition, the Fairbanks North Star Borough, Alaska Mental Health Trust Authority, and University of Alaska were consulted regarding necessary approvals to conduct cultural resources surveys on their lands and reporting requirements for those surveys. [Note: If APP consults with other parties with an appropriate standing and interest in cultural resources issues, it will provide copies of the consultations to the FERC in the final report and supplemental filings as necessary.]

## 4.6 SURVEY METHODOLOGY AND AREA OF POTENTIAL EFFECT

In 2010, APP applied the results of the 2001 Alaska Gas Pipeline Producers Team (AGPPT) archaeological sensitivity model using Geographic Information System data and observations from pre-field survey helicopter overflights to develop a generalized sensitivity map of the entire Pipeline Facilities<sup>7</sup> corridor. This essential step enabled stratification of the 2010 Pipeline Facilities corridor into areas of cultural resource sensitivity (Type A or Type B, described below) based on relationships between known sites and key environmental variables.

The 2010 Phase I cultural resources surveys were completed within a nominal 328-foot-wide (100 meters) corridor, with some areas expanding to up to 2,625 feet wide (800 meters). This survey corridor is based on APP's initial consultations with the OHA and BLM, and represents the Project's direct APE, generally encompassing the planned Pipeline Facilities<sup>8</sup>. These agencies have not provided official concurrence on the APE, however, the OHA and BLM issued their survey permits based on the APE that APP identified during initial consultations and the following survey methods that were proposed:

 Pre-survey helicopter overflight from south-end of the corridor (Canada border) north to Prudhoe Bay to demarcate generally high- or low-potential segments and note any visible historic buildings or structures;

The Pipeline Facilities will consist of the PT Pipeline and the Alaska Mainline, as discussed in Section 1.3.1 of Resource Report 1.

While the issue has been discussed with the OHA and BLM, no indirect APE has been formalized and APP's current surveys have focused on the direct APE where ground-disturbing activity is most likely to occur. APP's future surveys will include the indirect APE once it is defined.



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- Type A (low potential) helicopter or vehicular survey of lower-potential segments not
  previously surveyed to identify isolated high-potential areas for targeted ground survey;
  and
- Type B (high potential) pedestrian transect survey with systematic shovel testing of previously unsurveyed areas as well as targeted surveys where the previous survey (e.g., 2001 AGPPT) may have been inadequate.

# 4.7 ARCHAEOLOGICAL AND ABOVEGROUND RESOURCES BACKGROUND RESEARCH AND SURVEY RESULTS

APP completed a site file search and literature review to identify previous cultural resource surveys and previously recorded cultural resources in the Project vicinity. The previous surveys and data were then used to form the foundation for the research and field methodology for the Pipeline Facilities. Data sources from previous large-scale survey efforts that have occurred in or adjacent to the APP provided the most substantive data on the corridor and include Trans-Alaska Pipeline System (TAPS) data summaries; Northwest Alaskan Pipeline Company (NWA) data summaries; AGPPT data and summaries; and Alaska Heritage Resources Survey inventory data, which contain supplemental information on cultural resources that were located during other surveys not associated with pipeline projects. The background research is described in detail in APP's 2010 cultural resources survey report for the Project (refer to Appendix 4D), and is summarized below.

TAPS was surveyed between 1969 and 1977. As such, the geospatial accuracy of the reported sites may not be consistent with present-day standards. In addition, many of the structures that were recorded as "recent" or not reported at all during the initial survey are today beyond the 50-year guideline to be considered for NRHP eligibility and may now require evaluation.

Selected areas of the NWA pipeline study corridor were surveyed in the late 1970s. The NWA project was not constructed, but several reports were prepared documenting the survey and research efforts. The proposed NWA corridor overlapped some of the initial TAPS survey area.

Phase I surveys (consisting of helicopter overflights and ground surveys) were completed along approximately 727 miles of the AGPPT corridor and route revisions. Because the AGPPT corridor is closely aligned with the Pipeline Facilities, the AGPPT survey results and data summaries were used as the primary basis for APP's site-location sensitivity mapping that was used to develop the current survey methodology.

A summary list of the archaeological and aboveground resources identified within the Project area is provided in Table 4C-1 in Appendix 4C, along with the NRHP status of each resource. In summary, 150 of the sites that were identified during the 2010 and 2011 surveys are located within the current 2011 Alaska Mainline survey corridor. [Note: The presence of cultural sites within the Aboveground Facilities<sup>9</sup> and Associated Infrastructure<sup>10</sup> areas will be updated in the final report]. Forty-seven of these sites are new sites identified by APP in 2010 and 2011. The

Aboveground Facilities include the GTP, eight compressor stations, three custody meter stations, various MLBVs, pig launchers, pig receivers, provisions for intermediate gas delivery points, and cathodic protection facilities as discussed in Section 1.3.2 of Resource Report 1.

Associated Infrastructure and land required to construct and operate APP include additional temporary workspace (ATWS), access roads, helipads, airstrips, construction camps, pipe storage areas, contractor yards, borrow sites, and dock modifications, as discussed in Section 1.3.3 of Resource Report 1.



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remaining 103 sites were previously identified. Of the 150 sites, 81 sites are prehistoric, 49 sites are historic, and the remaining 20 sites have insufficient data to be categorized at this time. In addition to the Alaska Mainline, the PT Pipeline was also analyzed and surveyed. There are four sites along the PT Pipeline, three of which were identified by APP in 2010. All four sites are historic or recent-use sites. APP's 2010 cultural resource survey report, which provides a more detailed description of the archaeological and aboveground resources that may be affected by the Project, is contained in Appendix 4D. [Note: After the completion of the 2010 survey field season and associated report, the Project footprint has changed. The total number of affected sites presented in this draft resource report is based on the results of the 2010 and 2011 cultural resources surveys that were completed along the current route. The results of the 2011 field survey season are still being processed. Therefore, the total number of cultural resources presented in this report from the 2010 and 2011 survey field seasons is considered preliminary and will be updated in the final report.]

[Note: A set of aerial alignment sheets showing the results of the archaeological and aboveground resources surveys will be provided with the final report. The alignment sheets will show the identified archaeological and aboveground resources and Phase I archaeological and aboveground resources survey areas and type in relation to the construction corridor, extra workspaces, access roads, and other facilities, and will be filed under separate cover marked: "CONTAINS PRIVILEGED INFORMATION – DO NOT RELEASE."]

# 4.8 ARCHAEOLOGICAL AND ABOVEGROUND RESOURCES SURVEY COVERAGE

For the purposes of cultural resources surveys, the APP route was separated into cultural survey segments along the corridor between Prudhoe Bay and the Canada border (refer to Table 4.8-1). During the 2010 survey, APP concentrated on surveys along a 547-mile-long, 328-foot to 2,625-foot-wide (100 to 800 meter) survey corridors of the Alaska Mainline from Prudhoe Bay to Delta Junction. Surveys were completed along about 350 miles of the 547-mile-long survey corridor and were largely restricted to public lands (e.g., BLM and state), with some Fairbanks North Star Borough, Alaska Mental Health Trust Authority, and University of Alaska lands permitted late in the 2010 field season. Subsequent to the completion of the 2010 surveys and report, the Alaska Mainline route was revised; therefore, only 122 miles of the 2010 survey is within the current route and does not require additional survey. During the 2011 field survey, 380 miles of field survey were completed, and desktop review of an additional 109 miles of the route was completed. Data from the 2011 survey is being analyzed. The remaining field investigations in 2012 will include completing as much of the Phase I surveys of Aboveground Facilities and Associated Infrastructure as practicable, and addressing any significant reroutes.

In addition to the Alaska Mainline portion of the Project, APP surveyed 49 miles of the PT Pipeline route using aerial survey methods. The remaining portion of the PT Pipeline was not formally surveyed due to restricted access, although the helicopter overflight noted several potential survey points within the restricted area. These restricted areas (primarily the Prudhoe Bay Unit) will be targeted for archaeological survey early in the 2012 field season. In addition, surveys at the GTP site, compressor stations, and other ancillary facilities have not been initiated and will be targeted for surveys in the 2012 field season. [Note: Recommendations on additional necessary work and eligibility of sites crossed by the Project will be provided in the final report.]



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[Note: The status of survey coverage presented in this draft resource report is based on the 2010 and 2011 cultural resources surveys along the current route. As a result, the total length of cultural resources survey coverage presented in the 2010 survey report does not match the total presented in this draft resource report. Because the 2010 survey report covered portions of the Project that have since been eliminated from the route and the Project footprint has changed. APP will, in its final report, provide a summary report that includes an update of the results of surveys along the final route. Where sufficient field data have been collected, preliminary evaluations of recorded cultural resource sites and initial recommendations for additional work and NRHP eligibility will be presented.]

Table 4.8-1 includes the status of survey coverage along the 2011 route through the end of the 2011 field season by survey segment. [Note: A table of segments where survey is not complete due to restricted access will be updated in the final report 1

	TABLE	E 4.8-1			
Alaska Pipeline Project Summary of Phase I Surveys (Desktop, Type A, and Type B) Along the Pipeline Routes Archaeological and Aboveground Resources					
	Milepost		Completed	Unsurveyed – to be	
Facility Type/Survey Segment	Begin (approx.)	End (approx.)		Completed in 2012 (miles) <sup>a</sup>	
POINT THOMSON PIPELINE					
Point Thomson to Prudhoe Bay	0	58	49	9	
ALASKA MAINLINE					
Prudhoe Bay to Atigun Pass	0	174	166	8	
Atigun Pass to Yukon River	174	360	184	1	
Yukon River to Fairbanks	360	475	110	4	
Fairbanks to Delta Junction	475	547	54	19	
Delta Junction to Tok	547	655	66	39	
Tok to Canada Border	655	744	31	62	
•	Total		660	141	

Dependent upon landowner access.

#### 4.9 CONSTRUCTION UNANTICIPATED DISCOVERIES PLAN

APP will develop a Construction Unanticipated Discoveries Plan for Cultural Resources and Human Remains following the regulatory guidance related to the Section 106 process (refer to Appendix 4A). Refer to Appendix 4A of this draft resource report for an outline of the cultural component of the Construction Unanticipated Discoveries Plan. [Note: The Construction] Unanticipated Discoveries Plan will be provided in the final report.] The plan will establish the procedures to be used in the event that previously unreported historic properties or human remains are found during construction of APP. APP will provide the Construction Unanticipated Discoveries Plan to the OHA and BLM for review and comment, and will provide the plan and any comments from the OHA and BLM in the final report. During construction, copies of the Construction Unanticipated Discoveries Plan will be kept at the main construction office on each spread, and construction field management and environmental inspectors will be trained in its contents.



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## 4.10 ETHNOGRAPHIC STUDY

APP is conducting an ethnographic analysis to identify Alaska Native Organizations and Groups with ties to the Project vicinity and to identify properties of traditional religious or cultural importance to those organizations, interested persons, and ethnic groups.

An Ethnographic Study report will be completed that presents the results of interviews and observations and systematically describes the behavior, beliefs, and knowledge that are germane to understanding the property's cultural significance.

[Note: APP's Ethnographic Study will be included as Appendix 4E and will be filed under a separate cover marked "CONTAINS PRIVILEGED INFORMATION – DO NOT RELEASE" in the final report.]

[Note: During the Ethnographic Study, Traditional Knowledge surveys will also be conducted and the results of these surveys will be provided in the final report.]

## 4.11 CUMULATIVE IMPACTS

[Note: Field surveys and agency consultation are ongoing. Cumulative impacts will be updated in the final report].