

FINAL REPORT

**GLENNALLEN TO PALMER
GAS SPURLINE
ARCHAEOLOGICAL STUDIES**

ANGDA Contract No. 06-0407

REDACTED VERSION

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Acronyms and Abbreviations

ADNR	Alaska Department of Natural Resources
AHRS	Alaska Heritage Resources Survey
AHTNA	Ahtna Regional Corporation
ANC	Anchorage Series of AHRS
ANGDA	Alaska Natural Gas Development Authority
ARRC	Alaska Rural Rehabilitation Corporation
AS	Pipeline Alignment Sheet
BLM	Bureau of Land Management
CVTV	Chickaloon Village Traditional Council
GPS	global positioning system
GUL	Gulkana Series of AHRS
OHA	Office of History and Archaeology
PL MP	Pipeline Milepost
ROW	right-of-way
RS	Revised Statute
Shaw	Shaw Alaska, Inc.
SHPO	State Historic Preservation Office
State	State of Alaska
TAPS	Trans-Alaska Pipeline System
USCOE	United States Corps of Engineers
WACS	White Alice Communication System

Executive Summary

Under a current proposal, a 148-mile lone, 24-inch diameter natural gas spur line from Glennallen to Palmer, Alaska, will be pre-built in anticipation of an oil and gas producers' gas pipeline from Prudhoe Bay, Alaska, to Alberta, Canada, and/or Valdez, Alaska, via the existing trans-Alaska pipeline corridor to Valdez. In April 2005, an Alaska Natural Gas Development Authority (ANGDA)-contracted preliminary Environmental Report was completed by ASRC. The preliminary report included an initial survey of identified historical and archaeological sites and cultural resources within the proposed area of the spur line right of way (ROW) corridor. Cultural resources include prehistoric and historic artifacts, structures, and places on the landscape. During the initial spur line corridor routing, prehistoric and cultural resource sites were identified in the vicinity of the proposed route.

ANGDA is committed to compliance with state and federal laws that protect the historical and archaeological sites and cultural resources within the area of the proposed ROW corridor. This report is intended only as a review of recorded information with a limited field reconnaissance of known sites. It is not intended as a comprehensive archaeological survey, which will be conducted after approval of the final ROW location.

An Information Use Agreement was established between the Alaska Department of Natural Resources Office of History and Archaeology (OHA) and ANGDA in January 2005 to access the cultural resource site data available in the presented in the preliminary environmental report. This agreement is in effect for the information used in this report, which restricts use of this information by the general public to protect the known resources. Under OHA policy, "Access to and distribution of site location information will be limited to the applicant's use in legitimate scientific research of governmental planning, will be held in a secure place, and will not be redistributed to others."

A total of 25 recorded sites were found in the OHA Alaska Heritage Resources Survey (AHRs) that were within one mile of the proposed pipeline corridor; however, only two of these sites might be located within the proposed ROW corridor of 300 feet as shown in the engineering Alignment Sheets 1-24. All of the sites of concern in this report date from the historic period of human occupation. Prehistoric sites are listed in the AHRs database for this region; however, none of these sites are located in proximity to the proposed pipeline route.

The proposed pipeline route passes along the north edge of the Glenn Highway. Eureka Lodge, Anchorage Series of AHRs site 0485 (ANC-0485) ... Wickersham Cabin and Outbuilding (ANC-0774) ... and is in close proximity to the proposed ROW.

The proposed pipeline route passes through 12 miles of Bureau of Land Management (BLM) land approximately between Pipeline Milepost (PL MP) 59.5 and PL MP 79.5. The only AHRs site that falls within this range is Eureka Lodge (ANC-0485); however, the lodge building is part of a complex of buildings located on a private inholding adjacent to the Glenn Highway.

During the project site reconnaissance, access to four sites near Chickaloon could not be obtained due to scheduling problems with the CVTC office. None of these sites were on Chickaloon tribal property, but access to the sites require passage through tribal property requiring a land use permit issued by the CVTC office. The four sites are: Wickersham Cabin (ANC-0774), Oscar Voggel Cabin (ANC-0771), Chickaloon Gravesite #2 (ANC-0260), and Chickaloon (ANC-009). An attempt was made to coordinate with the permitting agent of the CVTC during the site reconnaissance to obtain permission to visit these sites, but an unexpected permit office closure on the pre-arranged day prevented the reconnaissance team from obtaining a permit.

In correspondence to ANGDA, the CVTC has voiced concerns about a traditional hunting and trading trail in the vicinity of Chickaloon; however, no documentation concerning this feature is available.

The Alaska State Historic Preservation Office has stated to ANGDA that a comprehensive archaeological ground survey of the entire final spur line corridor is required. This should be completed prior to any ground disturbing pre-construction activities, such as “centerline staking, developing gravel sites, and staging areas for permanent pipeline materials”.

Should a significant ROW design realignment occur, access roads or material sites be defined during the project planning, it is recommended that an additional review for site conflicts be conducted.

1.0 Introduction

The Alaska Natural Gas Development Authority (ANGDA) is a public corporation of the State of Alaska (State) agency created in 2003 to bring North Slope natural gas to market to alleviate the potential shortage of gas in southcentral Alaska. Under a current proposal, a 24-inch gas spur line from Glennallen to Palmer, Alaska, will be pre-built in anticipation of an oil and gas producers' gas pipeline from Prudhoe Bay, Alaska, to Alberta, Canada, and/or Valdez, Alaska, via the existing trans-Alaska pipeline corridor to Valdez. ANGDA has determined that the Glennallen to Palmer spur line can be financed by revenue bonds backed by gas utility rates paid by customers.

On April 4, 2005, ANGDA filed an application for a right-of-way (ROW) lease across State lands. The application was submitted pursuant to the Alaska Right-of-Way Leasing Act, AS 38.35. The pipeline would begin in Glennallen on Ahtna Regional Corporation (AHTNA) lands and end west of Palmer near the Glenn and Parks Highways interchange. Construction of the gas spur line is scheduled to begin in 2006.

ANGDA is committed to compliance with state and federal laws that protect the historical and archaeological sites and cultural resources within the area of the proposed ROW corridor. Evaluation of any pertinent resources will be conducted under the National Historic Preservation Act Section 106 consultation process with the Alaska State Historic Preservation Office (SHPO). In a June 2005 memorandum, SHPO stated that an archaeological survey should be conducted prior to any ground disturbing activities associated with any spur line pre-construction activities (SHPO, 2005). This report is intended only as a review of recorded information with a limited field reconnaissance of known sites. It is not intended as a comprehensive archaeological survey, which will be conducted after approval of the final ROW location.

ANGDA maintains a minimal staff and operates largely through contracts with the private sector. Under the state's competitive bidding procedures, ANGDA contracted Shaw Alaska, Inc. (Shaw) to perform the series of tasks to further the project's knowledge of archaeological and cultural sites that may be encountered during the spur line construction.

2.0 Scope of Work

In April 2005, an ANGDA-contracted preliminary Environmental Report (ANGDA Contract No. 005-0419) was completed, which included an initial survey of identified historical and archaeological sites and cultural resources within the proposed area of the spur line ROW corridor. Cultural resources include prehistoric and historic artifacts, structures, and places on the landscape. Researchers currently recognize several periods of human cultural and historical development that begin with the Paleoarctic Tradition (8,000 to 10,000 years ago) and continue until the present. During the initial spur line corridor routing, prehistoric and cultural resource sites were identified in the vicinity of the proposed route. (ANGDA, 2005c).

2.1 Project Location

The pipeline will originate approximately two miles north of Glennallen and west of the Trans-Alaska Pipeline System (TAPS) pipeline at TAPS Milepost 689.5. The compressor station and the first 15 miles of the buried pipeline would be located on lands owned by AHTNA. From there, the alignment enters the Glenn Highway ROW and remains in the highway ROW for approximately 50 miles. It will then follow a Revised Statute (RS) 2477 route into the Squaw and Caribou Creek drainages (RST 589 – Squaw Creek Trail; RST 433-Caribou Creek Trail; and RST 47-Chickaloon-King River Trail) crossing Chitna Pass into the Boulder Creek drainage and entering the Chickaloon area. From Chickaloon to Palmer the route mostly follows an existing Matanuska Electric Association easement that crosses state and private lands. The proposed terminus of the pipeline is southwest of the Glenn and Parks Highways interchange. The pipeline will tie into ENSTAR's existing 20-inch transmission pipeline on the west side of the Glenn Highway (ANGDA, 2005b). For more information, see the ANGDA website for a complete set of proposed corridor engineering alignment sheets at:

<http://www.jpo.doi.gov/ANGDA/Engineering%20Report/appendices.htm>.

2.2 Purpose and Objectives

To further full compliance with state and federal laws that protect these resources, ANGDA has completed this project for the following purposes:

- Identify real and potential historic, and cultural sites encountered along the proposed pipeline alignment
- Work with the Bureau of Land Management (BLM) Glennallen Field Office staff to identify areas in the “BLM Transfer Area” and the 50-mile long “Bump” zone (through Chitna Pass)
- Maintain close coordination with the Alaska Department of Natural Resources (ADNR) Office of History and Archaeology (OHA)

3.0 Methodology

All work under this contract was performed in accordance with the confidentiality protocols and requirements to protect the integrity of archaeological sites along the alignment.

Information was obtained at the Alaska OHA and from BLM field offices in Glennallen and Anchorage to locate and document known historical and archaeological sites along the proposed pipeline alignment. BLM land management jurisdiction along the proposed corridor is divided into two sections: the Glennallen field office covers the area from Glennallen to approximately the Caribou Creek section at Pipeline (PL) Milepost (MP) 0-76; the Anchorage field office covers the Caribou Creek area to Palmer at PL MP 76-148.

An Information Use Agreement was established between OHA and ANGDA in January 2005 to access the cultural resource site data presented in this report. This agreement restricts use of this information by the general public to protect the known resources. Under OHA policy, "Access to and distribution of site location information will be limited to the applicant's use in legitimate scientific research of governmental planning, will be held in a secure place, and will not be redistributed to others." A full copy of the Information Use Agreement is presented in Appendix A. During additional OHA research for this report in September 2005, an additional mandatory confidentiality agreement was signed by Shaw and Clarus.

3.1 Cultural Resources Inventory

The inventory of cultural resources under this contract included desktop/literature reviews of known recorded archaeological, cultural and historical sites in the following proposed corridor areas:

- Between Alignment Sheets (AS) 1-9, within PL MP 0-56
- Between AS 10-12, within PL MP 56-75
- Between AS 13-21, within PL MP 75-129
- Between AS 22-24, within PL MP 129-148

The following information sources were consulted as pertinent to the search due to direct land ownership, agency jurisdictional, or adjacent property considerations:

- ADNRS OHA – Alaska Heritage Resources Survey (AHRS)
- AHTNA
- BLM Glennallen Field Office
- BLM Anchorage Field Office
- Chickaloon Village Traditional Council (CVTC)

For research purposes, a 300-foot wide construction ROW was used for inclusion of any recorded sites. In addition, recorded sites within a one mile vicinity of the proposed ROW were also noted. Any anecdotal information was noted and summarized in the report's Results Section 5.0.

3.2 *Field Verification of Known Resources*

A limited site reconnaissance was conducted that focused on verification of sites found during the literature search and interviews. It was not within the scope or budget of this project to survey the entire proposed pipeline corridor for the potential of unrecorded sites. To the extent possible, all recorded sites were cross referenced between the information sources and ground-truthed using handheld global positioning system (GPS) equipment and digital photography. The original locations of recorded sites were presumed from the survey coordinates contained in the AHRS records. Field verification was determined by the availability of physical evidence and landowner permission to access sites. Original AHRS survey methods or equipment were not available to determine accuracy. New coordinates were recorded for any sites that could be physically-verified using a Garmin® GPSmap® 76CS with an accuracy of less than 15 meters (49 feet). All site results were summarized in table format and corresponding photographs were compiled in a photograph log.

3.3 *Draft Cultural Resources Preservation Plan*

As part of the ROW Lease Application, ANGDA agreed to the creation of a plan prior to construction to show how cultural resources will be protected during the construction, operation and maintenance or other related activities associated with the spur line. Under the lease, such a plan shall be developed, established and maintained to preclude any negative impacts to significant cultural resources by avoidance or, if this is not possible, to preserve significant data.

To avoid damaging any biological and archaeological resources, spur line contractors will provide employees training about the land, its people, their environment, and social and cultural values.

In addition, ANGDA would coordinate with the Alaska SHPO in the development of a project-specific Programmatic Agreement for Cultural Resources Protection. This report identifies examples of construction specifications and previously established programs that could be adapted for the purposes of the spur line. The development of a Programmatic Agreement is not within the scope of this project; however, the information collected in this report is intended for use during the creation of this agreement among the various parties.

4.0 Study Findings

4.1 Desktop/Literature Review

Two primary information sources were used to conduct this review, which included the OHA Alaska Heritage Resource Survey database and telephone conversations. Personal interviews were conducted whenever possible. All work has been performed in accordance with confidentiality protocols and requirements to protect the integrity of archaeological sites along the pipeline alignment.

AHRS Records

The following sections summarize the AHRS sites for relevance to the proposed pipeline corridor. The actual AHRS site names are cited and each record is paraphrased. Comments are included to relate each site's proximity to the proposed pipeline alignment. According to the OHA, the original survey methods for record locations could not be verified and that their accuracy should be questioned until an extensive archaeology survey is conducted. The original AHRS record coordinates are identified in the report along with the coordinates collected during this project. A proposed pipeline construction corridor ROW of 300 feet has been assumed, and all research focused on known sites nearest the ROW.

Interviews

BLM archaeologist John Jangala and Deputy Preservation Officer Robert King were both consulted about cultural resource sites within BLM lands that might be located along the alignment. Neither authority offered information beyond what is available in the Alaska Heritage Resources Survey (AHRS). Telephone consultation was also conducted with the AHTNA, CVTC, and OHA. Telephone logs of the above conversations are included in Appendix B (Consultation Records).

4.1.1 Pipeline Mileposts 1 to 56

The following desktop review addresses the presence of known archaeological, cultural and historical sites between AS 1 to 9. The area of concern lies between PL MP 1 to 56. None of the six sites on file at the AHRS were within the 300-foot wide proposed construction ROW. These sites are inventoried for consideration should a future need for corridor realignment or temporary construction access is required near these sites.

GUL-063: Woods Creek

AHRS Description: Prehistoric site in gravel pit, mostly destroyed

GUL-064: Mendeltna River X-ing

AHRS Description: Large amounts of burned bone, fire cracked rock, and several hearth areas noted in a gravel pit cut bank.

GUL-093: RCA Station Site

AHRS Description: An investigator noted a flake scatter on the surface of the hill at the Vertical Angle-Elevation Bench Mark Tolsona, the site of a radio relay station. In 1992, a second investigator examined the surface exposure briefly without finding anything.

GUL-124: Tolsona White Alice Communication System (WACS)

AHRS Description: Tolsona station opened in 1960 and provided communication between the Glennallen and Tahnetna stations. Facilities at this unattended two-way microwave repeater station consist of a radio relay building, a chain link fence, two heating fuel tanks, and a communications tower. Tolsona station was acquired by Alascom, Inc. in 1983. This site is in good condition and is currently in use.

GUL-126: Glennallen White Alice Communication System (WACS)

AHRS Description: Glennallen station opened in 1960 and provided microwave communication between Aurora station and Tolsona. Facilities at this station consist of a radio relay building, a chain link security fence, a heating fuel storage tank, and a communications tower. Glennallen station was declared excess in 1979 and purchased by Alascom, Inc. in 1983.

GUL-237: Glennallen (BLM) District Office Complex

AHRS Description: The site is composed of several log and frame buildings located north and south of the Glenn Highway. It contains: the main office, the Lands/Resources office, the “small” office, the manager’s residence, the workshop, a storage building, the storage cache, a gas shed, three wells, modular housing units, the “boneyard” storage building, a heliport, a gravel pad with decking and a bluegrass field and sauna. The buildings are of log, frame, or mixed construction. The buildings were built in the 1950s when the site served as a fire fighting center. In the late 1950s it also became a field office for the BLM. In the 1960s, it became the BLM Resource Area office. In 1986, the site became a BLM District Office.

Location: ... in the town of Glennallen.

Comments: The proposed pipeline alignment parallels the Glenn Highway 2 miles north of Glennallen; therefore, GUL-237 lies approximately 2 miles south and outside of the proposed construction ROW corridor.

Table 1 summarizes the nearest pipeline milepost to each site, ownership of the surrounding land, and site location coordinates.

Table 1 ----- AHRS Sites PL MP 1 to 56

4.1.2 Pipeline Mileposts 56 to 129

The following desktop review addresses the presence of known archaeological, cultural and historical sites between AS 10 to 21. The area of concern lies between PL MP 56 to 129. New GPS coordinates were collected only when a specific feature could be located as described in any given AHRS site file. Of the ten sites found in the AHRS records, none of the sites were within the 300-foot wide proposed construction ROW. These sites are inventoried for consideration should a future need for corridor realignment or temporary construction access is required near these sites.

BLM archaeologist John Jangala and Deputy Preservation Officer Robert King were both consulted about cultural resource sites within BLM lands along the alignment (Township 21 North, 12 East, Range 21 North, 11 East, Seward Meridian). These coordinates represent approximately 12 miles of the proposed pipeline alignment. Neither authority offered information beyond what is available in the AHRS. Telephone consultation was also conducted with the AHTNA, BLM and CVTC. Telephone logs can be found in the Appendix B.

ANC-486: Eureka Lodge (Eureka Roadhouse)

AHRS Description: This is the last of the original roadhouses on the Glenn Highway. This was an important stop for pre-highway travelers, built by Mr. and Mrs. Waverick in 1936. There have been four Eureka lodges: #2 and #3 burned; #1 and #4 are still standing. These two log cabins sit amid a complex of newer buildings. The large log cabin has two rooms and was the original lodge, while the smaller one was used by hunters.

Location: PL MP 59.75, on the north side of the Glenn Highway at Mile 128.

Comments: The AHRS card is outdated insofar as the original lodge has burned (date unknown) and was replaced by a modern frame building serving as a restaurant and gas station. The remaining log cabin “used by hunters” is situated in the middle of a complex of modern cabins and utility buildings. This small, one-story log cabin has a red metal roof, dimensional lumber for corner supports, and at least one addition of uncertain age which roughly doubles the size of the original building. A wooden sign on the front wall identifies the cabin as “Eureka Roadhouse, 1936.” The cabin appears to serve as either a permanent residence or as a rental for travelers. The proposed pipeline route passes between the Glenn Highway and the cabin in question, possibly within the the proposed construction ROW corridor. This site’s exact relative position to the ROW corridor should be verified by a land survey after final determination of the pipeline alignment and during the formal archaeological field survey as required by SHPO. See Appendix C, Photos 1-5.

ANC-774: Wickersham Cabin and Outbuilding

AHRS Description: This site sits on a small bench east of the trail and contains two remnants of structures of about the same size, a cabin and pole barn. Both have been leveled by fire. Foundation logs have been overgrown by moss and vegetation. At the base of a bench overlooking the site are the remains of a well and some type of super structure.

Comments: This AHRS site could not be field verified. A pedestrian reconnaissance of this site was not possible due to the need for a use permit to cross Chickaloon tribal lands to reach the

site. The location of this site appears to lie in close proximity to the construction corridor of the proposed construction ROW corridor (possibly within 500 feet).

ANC-771: Oscar Voggel Cabin

AHRS Description: The remains of this cabin include two walls represented by three full logs with saddle-notched corners. Several feet from the cabin is an overgrown midden. The site appears to have been abandoned for a long time. A tall stand of aspen is growing in the immediate vicinity. There is evidence that the cabin burned down. Core samples were taken from several trees within the structure indicating an approximate age since abandonment to be at least 46 years.

Comments: This AHRS site could not be field verified. A pedestrian reconnaissance of this site was not possible due to the need for a use permit to cross Chickaloon tribal lands to reach the site. This site lies at least 2,000 feet from the construction corridor of the proposed construction ROW corridor.

ANC-260: Chickaloon Gravesite #2 (Mishler's Chickaloon Gravesite #3)

AHRS Description: This is a cemetery site that reportedly contained five graves surrounded by a wooden fence. In 1975, the graves were identified as the grave of Louis Raymond Harrison (1931-1969), a baby's grave, and a grave identified by scattered remains of boards. The wooden fence that had surrounded this cemetery had collapsed. In 1981, Mishler reported that Johnny Shaginoff of Sutton identified the four unmarked graves as being that of Mrs. Harrison, Mrs. Nickoli, an unnamed infant (with no grave house – only a concrete slab), and Olga Corey. Olga Corey's grave consisted of a frame box but no house.

Comments: This AHRS site could not be field verified. A pedestrian reconnaissance of this site was not possible due to the need for a use permit to cross Chickaloon tribal lands to reach the site. This site lies at least 2,000 feet from the proposed construction ROW corridor.

ANC-009: Chickaloon (Chickaloon Mine)

AHRS Description: Site of government coal mining town established in 1916 at terminus of the Chickaloon branch of the Alaska Railroad. The mines employed up to 143 men to supply coal to the U.S. Navy. In 1918, over 28 frame and log buildings stood, and the town was bisected by the railroad. North of the tracks were two roadhouses, a railroad station, and several other structures. South of the tracks were a power plant, mess hall, school, and a few stores. In 1922, the Navy halted mine work, the post office closed, and most residents left. In the 1930s, town structures were gradually relocated. By the 1940s virtually nothing remained. In 1958, land was opened to homesteading. The remaining site consisted of many exploratory tunnels and buildings. Today the site is mostly covered by new growth forest. Only the cement foundation of the power plant and a few wood foundation outlines and floors remain.

Comments: This AHRS site could not be field verified. A pedestrian reconnaissance of this site was not possible due to the need for a use permit to cross Chickaloon tribal lands to reach the site. This site lies at least 2,000 feet from the proposed construction ROW corridor.

ANC-258: No name provided.

AHRS Description: Remains of two log cabins were noted here in 1979. These were not investigated in any detail.

Comments: This AHRS site could not be field verified. The OHA maps indicate that this site lies at least 4,000 feet from the proposed construction ROW corridor.

ANC-1323: Granite/Rhinehart Mine

AHRS Description: None.

Comments: This specific location of this AHRS site could not be field verified. The OHA maps indicate that this site lies at least 4,000 feet from the proposed construction ROW corridor.

ANC-257: No name provided.

AHRS Description: The remains of a log structure were noted here in 1979 but apparently were not further investigated.

Comments: This AHRS site could not be field verified. The OHA maps indicate that this site lies at least 4,000 feet from the proposed construction ROW corridor.

ANC-006: Eska (Emery, Eska Mine and Water Tank)

AHRS Description: This is the site of a former coal mining town and railroad terminus known as “Emery” until 1918. In 1917, a spur was completed to the privately owned Eska Coal Company mine which was in operation here. This was acquired by the Alaska Engineering Commission in 1917 and was a major source of coal until 1923 when the Alaska Railroad closed it in favor of using coal from the nearby Evan Jones mine (Jonesville, ANC-092). It was briefly reopened in 1937 when an underground explosion temporarily closed the Jonesville mine. In 1941, the railroad resumed mining operations here for the U.S. Army. In 1946, the railroad resumes mining operations here for the Army. In 1946, the mine was leased to the Evan Jones Coal Company, but operations are also reported to have ceased here that year. Mishler noted evidence of the mine portal, an octagonal wood frame water tank on concrete piers, a metal shed, junk cars, and other historic debris still in existence in 1981.

Comments: The specific location of this AHRS site could not be field verified. A pedestrian reconnaissance of the general former Eska location revealed coal debris, several occupied residences, dense second growth forest, and little evidence of historic material. This site lies at least 2,000 feet from the proposed construction ROW corridor. See Appendix C, Photo 6.

ANC-092: Jonesville R.R. Station (Evan Jones Mine)

AHRS Description: This railroad station and mining town were established in the early 1920s to serve Evan Jones Coal Company operations. An underground drift mine was in production here from 1920-1959 and strip mining was active on the adjacent hill from 1952-1967. An underground explosion in 1937 killed fourteen men. Another explosion in 1957 killed five

miners. Underground mining was discontinued in 1958, and strip mining ceased in the mid-1960s when military bases in the Anchorage area converted to natural gas. During its peak periods as many as 250 men were employed in the mine. In 1981, Mishler noted at least three structures with cinder block or concrete walls and sheet metal roofs. A round, wood frame well house and at least three dwellings of log and frame construction were also note here. Most structures were huddled around a sealed off portal.

Comments: The specific location of this AHRs site could not be field verified. A pedestrian reconnaissance of the Jonesville mine site revealed a vast waste pile of coal fragments and a road to the mine entrance blocked by steel bars. This site lies at least 2,000 feet from the proposed construction ROW corridor. See Appendix C, Photos 7 and 8.

Table 2 summarizes the nearest pipeline milepost to each site, ownership of the surrounding land, and site location coordinates.

Table 2 ----- AHRs Sites PL MP 56 to 129

4.1.3 Pipeline Mileposts 129 to 148

The following desktop review addresses the presence of known archaeological, cultural and historical sites between AS 22 to 24. The area of concern lies between the proposed PL MP 129 to 148. In this section, within the vicinity of Palmer, Alaska, a total of nine sites were found in the AHRs file search.

None of the sites appear to be within the 300-foot wide proposed construction ROW. All nine sites were estimated outside the proposed ROW from approximately 250 to 1,000 feet. Based on AHRs file descriptions, site locations were estimated by using map scale for approximate distance measurement. The site coordinates provided in the AHRs files consistently did not correlate with attempts to field locate structures or other related features.

Some sites could not be field verified due to lack of physical evidence or permission to enter the property. In these cases, no locations were presumed and no new field GPS coordinate readings were recorded. These sites are inventoried for consideration should a future need for corridor realignment or temporary construction access is required near these sites.

ANC-474: Roy Cornelius Homestead

AHRs Description: This homestead was started in 1914 by Roy Cornelius, from Pennsylvania. There are two log cabins and a relatively new barn remains on the property. The first cabin was built in 1914 and served as the Cornelius's first house and later a chicken coop. The second cabin was built in 1917 and is in good condition. The cabins have been unoccupied since 1953.

Comments: This AHRs site could not be field verified. A pedestrian reconnaissance of this site was not possible because permission could not be obtained to examine private property. It appears that the original Cornelius homestead lies within an active farm operated by the De Armoun family. The location of this site appears to lie in close proximity to the construction corridor of the proposed construction ROW corridor (possibly within 500 feet). See Appendix C, Photo 9.

ANC-554: Harry Sears Colony Farm (C. Carter, E. Kircher, W. Menck)

AHRS Description: This is the site of a former Alaska Rural Rehabilitation Corporation (ARRC) farm. The ARRC tract histories noted that the buildings from this tract were sold after the Sears vacated this tract in 1941. A 1986 survey of colony-era farms did not find any remains on this tract.

Comments: This AHRS site could not be field verified. A pedestrian reconnaissance of this site was not possible because a property owner at the location had never heard of Harry Sears or a colony farm. No evidence of a colony-era farm was in evidence. The AHRS file location information and coordinates are suspect. The presumed location of this site appears to lie in close proximity to the construction corridor of the proposed pipeline alignment (possibly within 500 feet).

ANC-212: A. Havemeister Colony Farm

AHRS Description: This is the site of a former ARRC farm. A house and a barn were noted here in 1986.

Comments: This AHRS site could not be field verified. A pedestrian reconnaissance of this site was conducted. A large modern two-story residence and barn are the most prominent buildings. No structures of obvious historical significance were in evidence. The property appears to be an active farm operation. The location of this site appears to lie in close proximity to the proposed construction ROW corridor (possibly within 500 feet). See Appendix C, Photo 10.

ANC-208: B.N. Dean Colony Farm

AHRS Description: This is the site of a former ARRC farm. One shed, two gable-roofed frame outbuildings, a frame barn, and a possible colony house were noted in 1986 at the southwest corner of the intersection of Trunk and Bogard Roads.

Comments: This AHRS site could not be field verified. The AHRS file coordinates indicate that the property is located on the opposite side of an intractable swamp. The AHRS file coordinates are presumed incorrect. The written description of the property location led to a private one-story frame residence with a log outbuilding (1940s era structure) with squared logs and a corrugated aluminum roof. A close pedestrian reconnaissance of this site was not possible because a property owner at the location could not be located. The location of this site appears to lie in close proximity to the construction corridor of the proposed pipeline alignment (possibly within 250 feet). See Appendix C, Photo 11.

ANC-447: Oscar Anderson Farm

AHRS Description: Oscar Anderson's pre-colony homestead. A 1981 survey indicated that two barns and an outhouse were still standing, although in poor condition. The larger barn is frame construction with an attached shed. The smaller barn is also a frame building, but has a board and rolled asphalt roof rather than a high-gabled corrugated metal roof like the larger barn. This possible working stable had collapsed by 1998. The nearby four-seat privy is in poor condition. No house is present. The buildings are of sawn lumber and in a style popular in the 1940s.

Comments: The AHRS file coordinates were approximately 500 feet off location. A pedestrian reconnaissance revealed two collapsed frame wooden barns with metal roofs fitting the above AHRS file description. The location of this site appears to lie approximately 1,000 feet from the proposed construction ROW corridor. See Appendix C, Photos 12 and 13.

ANC-458: Johnny Martin Homestead

AHRS Description: The structural remains present on this homestead include a collapsed log building with a frame roof, a frame storage building, an underground cache, a log house with splined corner posts, a log barn for small animals, a log building (in ruins), a burned building remnant, and another building remnant.

Comments: This AHRS site could not be field verified. According to the AHRS file coordinates, the location of this historic homestead is now the site of a new subdivision. No historic properties were in evidence during the field reconnaissance. A property owner in the vicinity confirmed that the historic homestead had been destroyed to begin construction of the subdivision. The location of this site appears to lie approximately 1,000 feet from the proposed construction ROW corridor. See Appendix C, Photo 14.

ANC-497: Marino House

AHRS Description: This two-story, squared-log house, was built by either Charley or Ben Marino between 1929 and the early 1940s. Originally the house had two rooms with an open loft and basement, but it has been greatly modified over the years.

Comments: This AHRS site could not be field verified. The AHRS file coordinates lead to a 1980s era two-story apartment building. No log cabins were in evidence in the vicinity. The location of this site appears to lie approximately 1,000 feet from the proposed construction ROW corridor. See Appendix C, Photo 15.

ANC-190: Alaska Rural Rehabilitation Corporation Camp 2

AHRS Description: This site contained the temporary housing camp for the Matanuska ARRC colonists while their own homes were being constructed. There is no trace of this camp.

Comments: This AHRS site could not be field verified. The AHRS file coordinates lead to the fenced property of American Mini Storage. No historical material was in evidence. The location of this site appears to lie in close proximity to the proposed construction ROW corridor (possibly within 500 feet). See Appendix C, Photo 16.

ANC-428: Dearborn Site

AHRS Description: Jay Dearborn found a hide flesher made from a mature moose metacarpal and associated bones (all from an adult moose), which included a scapula fragment, a distal fragment of a phalanx, a metatarsal fragment (sawn lengthwise), and a right mandible fragment.

Comments: This AHRS site could not be field verified. The AHRS file coordinates lead to a commercial storage area with a storage building in a residential area. The property is adjacent to

private residences and a furniture dealership building. No archaeological material was in evidence. The location was covered with gravel fill. The location of this site appears to lie in close proximity to the proposed construction ROW corridor (possibly within 500 feet). See Appendix C, Photo 17.

Table 3 summarizes the nearest pipeline milepost to each site, ownership of the surrounding land, and site location coordinates.

Table 3 ----- AHRS Sites PL MP 129 to 148

4.2 Field Reconnaissance

No formal survey of the proposed corridor has been undertaken to date. It was not within project scope or budget to complete a comprehensive archaeological ground survey. According to the SHPO, this type of detailed survey could take an entire field season.

On August 23-24, 2005, Chris Allan of Clarus and Scott Norton of Shaw used records and interview information obtained at the ADNOR OHA and BLM offices in Glennallen and Anchorage to locate and verify known historical and archaeological sites in proximity to the proposed pipeline alignment. This field reconnaissance was limited to sites in proximity of the road system. Due to the project scope, field work did not attempt to cross roadless areas or engage in long distance hikes or use off-road vehicles to reach potential sites. While these constraints limited the investigators' ability to ground-truth every site, this report includes information about all known sites within approximately 4,000 feet of the proposed pipeline alignment.

A total of 25 recorded sites were found in the OHA AHRS that are in proximity to the proposed pipeline corridor; however, only two of these sites might be located within the proposed ROW corridor of 300 feet. Eureka Lodge (ANC-0485) ... Wickersham Cabin and Outbuilding (ANC-0774)

4.3 Example Cultural Resource Preservation Plans and Specifications

The following list represents standard plans and specifications used in Alaska during major construction projects. Excerpt, sections or their entirety may be used to formulate spur line-specific training or guidelines for cultural resource protection. If the document is not proprietary, the full example(s) can be found in Appendix D.

- Alaska Department of Transportation & Public Facilities - Cultural Resource Construction Specification
- USCOE Cultural Resource Protection Plan
- Potential Reference: *Alyeska Pipeline Service Company, TAPS Oil Spill Contingency Plan* (This document was originally cited by SHPO as a potential reference, but SHPO later determined this as proprietary information. However,

due to the similar nature of the pipeline projects, the owner could be contacted at the time the spur line cultural resource plan is written for general reference information from this document).

5.0 ***Conclusions and Recommendations***

A total of 25 recorded sites were found in the OHA AHRs that are within a one mile proximity to the proposed pipeline corridor as shown in AS 1-24. However, only two of these sites might be located within the proposed ROW corridor of 300 feet. Eureka Lodge (ANC-0485) Wickersham Cabin and Outbuilding (ANC-0774) . This site was not ground-truthed because permitting from the CVTC was required to reach the site. A majority of the AHRs site could not be field verified due to lack of physical evidence or permission to enter the property. In these cases, no locations were presumed and no new field GPS coordinate readings were recorded.

All of the sites of concern in this report date from the historic period of human occupation. Prehistoric sites are listed in the AHRs database for this region; however, none of these sites are located in proximity to the proposed pipeline route. The CVTC has voiced concerns about a traditional hunting and trading trail; however, no documentation concerning this feature is available.

The proposed pipeline route passes through 12 miles of BLM land approximately between PL MP 59.5 and PL MP 79.5. The only AHRs site that falls within this range is Eureka Lodge (ANC-0485); however, the lodge building is part of a complex of buildings located on a private inholding adjacent to the Glenn Highway.

During the project site reconnaissance, access to four sites near Chickaloon could not be obtained due to scheduling problems with the CVTC office. None of these sites were on Chickaloon tribal property, but access to the sites require passage through tribal property requiring a land use permit issued by the CVTC office. The four sites are: Wickersham Cabin (ANC-0774), Oscar Voggel Cabin (ANC-0771), Chickaloon Gravesite #2 (ANC-0260), and Chickaloon (ANC-009). An attempt was made to coordinate with the permitting agent of the CVTC during the site reconnaissance to obtain permission to visit the aforementioned sites, but an unexpected permit office closure on the pre-arranged day prevented the reconnaissance team from obtaining a permit.

The Alaska SHPO has stated to ANGDA that a comprehensive ground archaeological survey of the entire final spur line corridor. This should be completed prior to any ground disturbing pre-construction activities, such as “centerline staking, developing gravel sites, and staging areas for permanent pipeline materials”.

Should a significant ROW realignment occur, access roads or material sites be defined during the project planning, it is recommended that an additional review for site conflicts be conducted.

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7.0 List of Preparers

Position	Name	Company
Contract Manager	Laura Noland	Shaw Alaska, Inc.
Project Manager	John Ingold	Shaw Alaska, Inc.
Archaeologist	Bonnie Morris	Clarus Technologies
Historian	Chris Allan	Clarus Technologies
Field Technician	Scott Norton	Shaw Alaska, Inc.

Appendix A
OHA/ANGDA Information Use Agreement

Appendix B

Consultation Records

Telephone Log

Date: August 15, 2005 – 10:30 am
To: John Jangala, Bureau of Land Management, Glennallen, Alaska, Field Office
Phone: (907) 822-3217
From: Chris Allan, Historian, Clarus Technologies

I spoke to Mr. Jangala (BLM Glennallen) about the ANGDA proposed pipeline alignment and the potential for archeological and historical sites on BLM lands in the pipeline corridor.

Mr. Jangala said he did not have any cultural resource information for sites on the land in question and referred me to Robert King (BLM Anchorage) for fieldwork permitting.

I asked Mr. Jangala if he would like to accompany my fieldwork team to the Eureka Lodge area to show us around any sites there. He declined and told me that he did not know of any sites there beyond the well documented Eureka Lodge.

He did mention a trade trail formerly used by the people of Chickaloon. He noted that the Chickaloon Tribal Council would likely have concerns about the pipeline route and the trail. He said that there might be hunting camps along the route between Copper Center and Cook Inlet.

Mr. Jangala supplied me with permit forms via email (these did not prove necessary).

END

Telephone Log

Date: August 16, 2005 – 1:00 pm
To: Robert King, Anchorage, Alaska, BLM Field Office
Phone: (907) 271-5510
From: Chris Allan, Historian, Clarus Technologies

I spoke to Mr. King briefly about the ANGDA proposed pipeline alignment and the potential for archeological and historical sites on BLM lands in the pipeline corridor.

Mr. King said that he didn't know of additional historical or archeological sites along the pipeline corridor through BLM lands beyond the ones listed in the AHRS.

Mr. King was more concerned that I have a permit to conduct archaeological work on BLM lands. I assured him that we did not intend to dig or collect artifacts. He e-mailed me permit forms just in case they became necessary at a later date.

END

Telephone Log

Date: August 18, 2005
To: Angie Wade and Sarah Masco, Chickaloon Village Traditional Council
Phone: (907) 745-0707
From: Bonnie Morris, Archaeologist, Clarus Technologies

I called the Chickaloon Village Traditional Council (Nay'dini'aa Na') regarding the Archaeological Reconnaissance Project. They were familiar with the project. We discussed the following topics.

Sacred Traditional Sites:

Both said that there are many areas within the pipeline corridor that affect traditional sites and use. Almost the entire corridor was an ancient traditional migration route from Copper Center to the Inlet area. Boulder Creek was also a traditional hunting area.

They are very concerned that unrecorded sites will be damaged and lost.

Recommendations:

They would like to see the area surveyed before work begins. They would also like to be kept informed.

Requests:

If we are in the area looking at known recorded sites, they would appreciate a call.

END

Telephone Log

Date: September 1, 2005 – 10: 45 am
To: Kathryn Martin, Ahtna, Inc., Glennallen, Alaska
Phone: (907) 822-3476
From: Chris Allan, Historian, Clarus Technologies

I called the Ahtna, Inc. Regional Corporation's Land and Administration Manager regarding the ANGDA spur pipeline route. She was familiar with the project and said that she was the correct person to call. We discussed the following topics, which Ahtna representatives had voiced in previous meeting with ANGDA:

Possible Effects on Caribou Populations:

Ahtna representatives were concerned about caribou migration routes and an above-ground pipeline. They were assured that the pipeline will run underground.

Response to Leaks and Spill Prevention:

The second principal concern about the proposed pipeline route had to do with the possibility of leaks and spills. Ahtna representatives (during past meetings) had inquired about plans for spill response and clean-up protocols.

According to Ms. Martin, these were the principal concerns of the Ahtna Regional Corporation.

I also inquired about Ahtna land maps online and was transferred to Ezekiel Bay, the Ahtna GIS specialist. I gave Ezekiel the URL address for the ANGDA alignment sheets because he was curious about the proposed route.

END

Telephone Log

Date: September 8, 2005
To: Joan Dale, ADNR Office of History and Archaeology
Phone: (907) 269-8718
From: John Ingold, Project Manager, Shaw Alaska

Ms. Dale was consulted on the following. The conversation is paraphrased below:

Example Cultural Resource Protection Plans

According to Ms. Dale, possibly the best cultural resource protection information for training or reporting procedures related to a pipeline project is included in the Alyeska Pipeline Service Company's TAPS Oil Spill Contingency Plan. A copy of this document is on file with the State Historic Preservation Office (SHPO), but she believed that this may be a proprietary document. She would check if sections of this document could be used as a guideline for ANGDA's purposes of creating a similar plan for the gas spur pipeline.

Ms. Dale also said standard information may also be available from SHPO that may be helpful. She would check and call back.

AHRS Site Data

According to Ms. Dale, the various records on file may not have consistent survey methods. Accuracy of the recorded coordinates for any site have not been verified by OHA. It is unknown whether traditional land survey or GPS information was used.

New Alaska State Statute

Ms. Dale suggested that any new cultural resource protection plan consider a new Alaska-specific Native graves protection statute, Alaska Statute 11.46.428.

Ms. Dale said she would call back to follow up on the information available from her office and whether the Alyeska document was proprietary.

END

Appendix C

Photographic Log



Photo 1: Eureka Cabin (ANC-486), PL MP



Photo 2: Eureka Cabin (ANC-486), PL MP



Photo 3: Eureka Cabin (ANC-486), PL MP



Photo 4: Rear of Eureka Roadhouse Complex, PL MP 59.75, facing northwest



Photo 5: Historical Photograph of Former Eureka Roadhouse



Photo 6: Residences at Eska Site (ANC-006), PL MP



Photo 7: Jonesville R.R. Station Site (ANC-092), PL MP



Photo 8: Jonesville R.R. Station Site (ANC-092), PL MP



Photo 9: Vicinity of Roy Cornelius Homestead (ANC-474) at De Armoun Farm, PL MP



Photo 10: A. Havemeister Colony Farm (ANC-212), PL MP



Photo 11: Vicinity of B. N. Dean Colony Farm (ANC-208), PL MP



Photo 12: Oscar Anderson Farm (ANC-447), PL MP



Photo 13: Oscar Anderson Farm (ANC-447), PL MP



Photo 14: Subdivision at Site of Johnny Martin Homestead (ANC-458), PL MP



Photo 15: Apartment Building at Site of Marino House (ANC-497), PL MP



Photo 16: Vicinity of ARRC Camp 2 (ANC-190), PL MP



Photo 17: Vicinity of Dearborn Site (ANC-428), PL MP

Appendix D
Example
Cultural Resource Protection
Plans and Specifications

Example 1 - Cultural Resource Training Programs

U.S. Army Corps of Engineers, Alaska District
Generic Cultural Resource Protection Plan (Excerpts)

USCOE Cultural Resource Construction Specification

In accordance with stipulations from the Alaska State Historic Preservation Officer, this Cultural Resources Protection Plan provides guidelines and procedures applicable during construction and/or maintenance activities.

Although no cultural resources are known to be present in the proposed pipeline corridor, there is always the potential that archaeological, historic or cultural objects or human remains could be unintentionally unearthed during construction or maintenance activities. Examples of artifacts and cultural items could include the following:

- Bone fragments from old hunting sites
- Human remains
- Old bottles, cans, equipment

If any of these objects or any similar objects are encountered during work activities, work will be stopped immediately, and the project site manager will be contacted. If any worker is found vandalizing, deliberately moving, or collecting cultural materials, he or she will be subject to disciplinary actions, including immediate dismissal from the work site and termination. Subcontractors are also subject to this policy.

Prior to the mobilization of field staff to the project sites, the Contractor must assure that each worker has received the necessary training to identify objects that may be of cultural or historical significance. The cultural resource notification process is initiated upon the discovery of a cultural or historical object (or any object suspected of having cultural or historical significance) using the following procedure:

1. Stop work immediately, and contact the Contractor site manager. A field worker may photograph an artifact only if it is in immediate danger of being broken or damaged by collapsing soil. All photographs must be surrendered to a _____ (BLM? SHPO? Chickaloon?) archaeologist as soon as possible.
2. Stop work immediately and contact the Contractor site manager if there is any question whether an item or items unearthed or observed during field activities have historical or cultural significance.
3. The person who discovers the item(s) must document the discovery on the two page Cultural Resource Notification Form within two hours of the discovery. This form has been designed specifically for communicating field conditions consistently to all parties while preventing miscommunication. Copies of the notification form will be provided to all project contractors prior to the field work mobilization.
4. The reporting process continues until all designated Contractor and Client project contact personnel have been notified. The Contractor site manager must telephone these

individuals until contact is made. If the discovery is made on a weekend, the site manager will telephone the contacts on the next business day (or sooner, if contact personnel have provided the site manager with their home or cell phone numbers).

5. Unless a designated project archaeologist determines that the discovered object does not have cultural or historical significance, no further work will take place at the project site until the Contractor receives written authorization from the Client.

The following individuals are the designated points of contact for the project in the event of a stop work condition:

Position	Name	Office Phone	Cell Phone	Fax
Client PM				
Project Archaeologist				
Contractor PM				
Contractor Cultural Resources Rep				
Brief Description of activity that led to discovery:				
Photographs: (See attached photographs, if available)				
Action taken at project site:				
Location of discovery:				
Description of item found:				
Sketch map of discovery site:				

Signature Page

I have read the following document, have been briefed by the Contractor site manager, and understand my responsibilities in reporting the discovery of any prehistoric, historical, or cultural object (or any object suspected of having such significance) to the Contractor site manager.

Furthermore, I understand that any Contractor employee found vandalizing, moving, or collecting cultural materials will be subject to disciplinary actions up to and including immediate dismissal from the work site and termination of employment.

	Name	Signature	Date
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

Example 2 - Cultural Resource Training Programs

Alaska Department of Transportation and Public Facilities Cultural Resource Protection - Construction Specification

“In the event that previous unknown archaeological, historical or cultural sites are unearthed during construction, all work in the immediate vicinity shall cease immediately and the appropriate officials will be notified.”

“Should human remains or items of cultural patrimony be located within the project area, the contractor shall: (1) take immediate steps to secure and protect the discovered human remains and cultural items, including, as appropriate, stabilizing or covering; (2) notify immediately the Alaska Department of Transportation and Public Facilities and the State Historic Preservation Office.”

“Contact information for the parties listed in the above paragraph follows:

Mr./Ms. (TBD) _____
ADOT&PF
PO Box _____
Anchorage, Alaska 995 ____
(907) 269- _____

Ms. Judith Bittner
Division of Parks and Recreation
Office of History and Archaeology
550 W. 7th Ave. Suite 1310
Anchorage, Alaska 99501-3565
(907) 269-8715