

ALASKA LNG PROJECT	DOCKET No. CP17-____-000 RESOURCE REPORT No. 6 APPENDIX D – PALEONTOLOGICAL RESOURCES UNANTICIPATED DISCOVERIES PLAN	Doc No: USAI-PE-SRREG-00- 000006-000 DATE: APRIL 14, 2017 REVISION: 0
	PUBLIC	

**APPENDIX D      PALEONTOLOGICAL RESOURCES UNANTICIPATED  
DISCOVERIES PLAN**



# ALASKA LNG

## PALEONTOLOGICAL RESOURCES UNANTICIPATED DISCOVERIES PLAN

USAI-P2-SPZZZ-00-000004-000

ALASKA LNG PROJECT	APPENDIX D –PALEONTOLOGICAL RESOURCES UNANTICIPATED DISCOVERIES PLAN	USAI-P2-SPZZZ-00-000004-000 14-APRIL-17 REVISION: 0
	PUBLIC	PAGE I OF 6

Note: The purpose of this *Paleontological Unanticipated Discovery Plan (Plan)* is to reduce the potential for damage to significant paleontological resources in the event that significant unanticipated paleontological resources are encountered during construction of the Alaska LNG Project (Project). The intent of the current draft is to demonstrate the sections of the *Plan* that are required and the level of detail that can be included. The outline for this *Plan* follows that of other large projects that cross both federal (Bureau of Land Management [BLM]) and state lands. This *Plan* will be updated once all pre-construction surveys have been completed; however, the *Plan* outline is provided in this draft.

ALASKA LNG PROJECT	APPENDIX D –PALEONTOLOGICAL RESOURCES UNANTICIPATED DISCOVERIES PLAN	USAI-P2-SPZZZ-00-000004-000 14-APRIL-17 REVISION: 0
	PUBLIC	PAGE ii OF 6

**TABLE OF CONTENTS**

**1.0 REGULATORY FRAMEWORK..... 1**

**2.0 PALEONTOLOGY SENSITIVITY TRAINING ..... 2**

**3.0 PROJECT-WIDE MEASURES ..... 3**

**4.0 NOTIFICATION..... 4**

    4.1 INITIAL DOCUMENTATION AND EVALUATION OF UNANTICIPATED DISCOVERY ..... 4

    4.2 NOTIFICATION OF ALASKA SHPO AND LANDOWNER OF UNANTICIPATED DISCOVERY ..... 4

**5.0 MITIGATION/FOSSIL EXTRACTION ..... 5**

**6.0 DOCUMENTATION ..... 6**

    6.1 AUTHORITY TO RESUME WORK ..... 6

    6.2 DOCUMENTATION OF PALEONTOLOGICAL MATERIALS ..... 6

**LIST OF TABLES**

**Table 1: Notification List for Unanticipated Discovery ..... 4**

ALASKA LNG PROJECT	APPENDIX D –PALEONTOLOGICAL RESOURCES UNANTICIPATED DISCOVERIES PLAN	USAI-P2-SPZZZ-00-000004-000 14-APRIL-17 REVISION: 0
	PUBLIC	PAGE 1 OF 6

## 1.0 REGULATORY FRAMEWORK

Paleontological resources are the remains of former life preserved in rocks or sediments. These include fossils, imprints, molds, casts, or traces. Fossils of plants and animals, both marine and terrestrial, are valuable scientific resources that document the history of life on the planet. Fossils are protected under the following laws:

- Antiquities Act (any fossil that is considered of scientific value).
- The Omnibus Public Land Management Act of 2009, Public Law 111-011, also known as the Paleontological Resources Preservation Act (PRPA).
- Alaska Historic Preservation Act (Alaska Statutes Title 41, Chapter 35).
- Federal Land Policy and Management Act (Section 302(b) of PL 94-579, October 1976); National Environmental Policy Act (NEPA).
- Federal Cave Resources Protection Act (16 U.S. Code Chapter 63).
- Archaeological Resources Protection Act (16 U.S. Code 470aa-470mm).

ALASKA LNG PROJECT	APPENDIX D –PALEONTOLOGICAL RESOURCES UNANTICIPATED DISCOVERIES PLAN	USAI-P2-SPZZZ-00-000004-000 14-APRIL-17 REVISION: 0
	PUBLIC	PAGE 2 OF 6

## 2.0 PALEONTOLOGY SENSITIVITY TRAINING

The Project entity will provide training to Project entity personnel, including project managers, environmental inspectors, construction supervisors, heavy equipment operators, and other construction personnel prior to any ground-disturbing activities. The training will be presented by a qualified paleontologist and will include:

- The scientific importance of fossil remains.
- The potential for fossil remains being uncovered and/or disturbed by Project-related activities.
- Where such remains are most likely to be encountered during Project activities.
- Procedures to be employed if fossil remains are discovered during excavations (Section 4.0).

The qualified paleontologist will prepare a presentation and brief all Project entity personnel directly involved in field activities on field identification of paleontological resources. Personnel will also be cautioned on the legal and/or regulatory implications of knowingly destroying paleontological resources or removing fossils or other paleontological materials from the site of initial discovery. The training will also include instruction regarding stipulations provided in the *Paleontological Resources Management Plan* (See Resource Report No. 6, Appendix E) protocols, with emphasis on actions to be taken in the event of unanticipated discovery of a paleontological resource during Project activities, as outlined in this *Plan*.

The training will be completed by all Project entity personnel before they participate in activities that could adversely impact paleontological resources. Additional training sessions would be conducted on an as-needed basis (e.g., hire of a new equipment operator). Attendance at training sessions will be documented.

ALASKA LNG PROJECT	APPENDIX D –PALEONTOLOGICAL RESOURCES UNANTICIPATED DISCOVERIES PLAN	USAI-P2-SPZZZ-00-000004-000 14-APRIL-17 REVISION: 0
	PUBLIC	PAGE 3 OF 6

### 3.0 PROJECT-WIDE MEASURES

Should construction personnel identify a paleontological resource discovery, the following steps would occur:

- Activity is halted in the immediate vicinity of the discovery and a barricade of 100 feet in diameter would be placed around the discovery.
- The paleontological monitor or other individual making the discovery will ensure that an area of at least 30 feet around the discovery is flagged or fenced with flagging tape or similar material. If the find is staked, the stakes should be painted with a florescent color and have flagging attached. The flagging or stakes should be placed no more than 25 feet apart. The paleontological monitor or other individual will also be responsible to prevent any traffic through, beyond that necessary to remove vehicles and equipment already within the area immediately surrounding the discovery.
- Construction personnel notify supervisor and Environmental Inspector, who then notify the appropriate Project entity personnel.
- The Environmental Inspector contacts a qualified paleontologist to verify the discovery.

If the paleontologist determines that the discovery is non-paleontological:

- The appropriate Project entity personnel are notified.
- The halted construction activity may resume.

If the paleontologist determines that the discovery is paleontological:

- Project entity personnel are notified and the Project entity notifies FERC and the landowner as appropriate.
- The find is treated similar to other discoveries.
- The findings will be detailed in a Discovery Report.



ALASKA LNG PROJECT	APPENDIX D –PALEONTOLOGICAL RESOURCES UNANTICIPATED DISCOVERIES PLAN	USAI-P2-SPZZZ-00-000004-000 14-APRIL-17 REVISION: 0
	PUBLIC	PAGE 4 OF 6

## 4.0 NOTIFICATION

Individuals who will be notified immediately in the event of unanticipated site discovery are listed in Table 1.

**Table 1: Notification List for Unanticipated Discovery**

Name	Agency/Company	Role/Title	Phone
TBD	FERC	FERC field inspector	TBD
TBD	Project entity	Project field inspector	TBD
TBD	TBD – Contractor Site Manager	Site Manager	TBD
TBD	Project entity	SSH&E Advisor	TBD
TBD	Landowner	Landowner	TBD
TBD	TBD	Project Principal Paleontologist	TBD
Robert King (*if discovery occurs on BLM lands)	BLM	BLM State Paleontologist	907-271-5510
Richard VanderHoeck (*if discovery occurs on state lands)	Alaska Office of History and Archaeology (SHPO)	Acting State Archaeologist/Deputy SHPO	907-269-8728

### 4.1 INITIAL DOCUMENTATION AND EVALUATION OF UNANTICIPATED DISCOVERY

A qualified paleontologist would verify all potential unanticipated discoveries. If the discovery is determined to be a significant paleontological resource, the paleontologist would promptly:

- Notify the crew supervisor, who would in turn contact the Project site manager to begin the official notification process;
- Flag, stake or otherwise mark an area 30 feet around the find location to prevent access or further disturbance.
- Complete a preliminary monitoring report.
- Determine, in consultation with the Project entity, whether or not the discovered resource can be avoided.
- Evaluate the significance of the resource if impacts to the discovery cannot be avoided.

### 4.2 NOTIFICATION OF ALASKA SHPO AND LANDOWNER OF UNANTICIPATED DISCOVERY

After the qualified paleontologist notifies Project entity staff of a verified unanticipated discovery, if the paleontological monitor is not on location, the Project entity site manager would also notify the paleontological monitor or Principal Paleontologist. The notification would include a brief description of the discovery and its location. Project entity management would also notify State Historic Preservation Office (SHPO) and landowner or appropriate land management agency as applicable.

ALASKA LNG PROJECT	APPENDIX D –PALEONTOLOGICAL RESOURCES UNANTICIPATED DISCOVERIES PLAN	USAI-P2-SPZZZ-00-000004-000 14-APRIL-17 REVISION: 0
	PUBLIC	PAGE 5 OF 6

## 5.0 MITIGATION/FOSSIL EXTRACTION

If fossil discoveries were to be made during construction, an immediate evaluation and significance determination would be necessary to determine whether the find should be salvaged. Non-significant fossils do not require salvage, but would be photographed and recorded to the extent possible.

Significant fossils, defined as all vertebrate fossils and their tracks or traces, and some invertebrate or plant fossils identified as rare or important by the scientific community, would be collected and curated into an acceptable repository. Collection methods would depend on each individual discovery, but may require being jacketed using burlap and plaster. Specific details regarding fossil collection are provided in Section 3.3 of the *Paleontological Resources Monitoring Report*.

Standard data will be recorded on paleontological locality forms and photo documented. The fossil will be removed as quickly and safely as possible to protect the resource and to minimize delays to construction. Further analysis may be conducted in a laboratory prior to curation and completion of the final monitoring report.

ALASKA LNG PROJECT	APPENDIX D –PALEONTOLOGICAL RESOURCES UNANTICIPATED DISCOVERIES PLAN	USAI-P2-SPZZZ-00-000004-000 14-APRIL-17 REVISION: 0
	PUBLIC	PAGE 6 OF 6

## 6.0 DOCUMENTATION

The Principal Paleontologist would prepare a preliminary monitoring report of the unanticipated discovery. If the discovery is a previously unidentified paleontological site, then the following steps will be taken:

- At minimum, a 100-foot area around the discovery, including the periphery of disturbance from Project activity, would be examined for any surface manifestation of the site. Appropriate records from the Alaska Heritage Resource Survey (AHRs) would be completed.
- The Principal Paleontologist would advise the Project entity site manager as to whether additional testing will be needed to assess site significance.

At the conclusion of the mitigation requirements, the Principal Paleontologist would prepare a monitoring report summarizing preliminary results of the investigations. The report would be submitted to the Project entity within 72 hours of the completion of the fieldwork. The Applicants would submit a copy of the preliminary report to SHPO and appropriate landowners and management agencies within 72 hours of receipt of the report. SHPO and/or BLM would have up to 30 calendar days from receipt of the preliminary data recovery report to determine whether additional investigations are justified. In addition, if the discovery is on BLM-managed lands the appropriate forms, as identified in the BLM Paleo permit (AA-094021), would be included in the submission.

### 6.1 AUTHORITY TO RESUME WORK

Authority to resume work at the discovery location depends on the nature of the discovery. If the discovery is determined not to be significant, this protocol no longer applies, and work may resume on the authority of the Principal Paleontologist or paleontological monitor and crew supervisor.

If SHPO and/or BLM concurs that no additional investigations are justified, then SHPO and/or BLM would either provide a Notice to Proceed (NTP) or provide an authorized signature on the data recovery report. The NTP or signed report would be submitted to the Applicants by fax and mail.

Work may resume immediately upon receipt of either the NTP or signed report. Work would not resume at the location of an unanticipated paleontological discovery until it has either received the written NTP or signed report.

### 6.2 DOCUMENTATION OF PALEONTOLOGICAL MATERIALS

All fossil material discovered during Project activities would be documented and treated according to professional standards. Fossil elements and remains would be photographed and stratigraphic context recorded. Discovery locations would be documented and recorded via GPS.

If excavation is required to collect and remove fossils, excavation, fossil stabilization and preservation, and curation protocols detailed in Section 6.0 would be followed.

Within 90 days of concluding fieldwork, a technical report describing any and all monitoring and resultant paleontological excavations would be provided to the Project entity, SHPO, and appropriate land-management agencies.