



THE STATE
of **ALASKA**
GOVERNOR BILL WALKER

Department of Natural Resources

DIVISION OF OIL AND GAS

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November 16, 2018

Patrick Conway
Regulatory and Compliance Manager
Oil Search Alaska, LLC
510 L Street, Suite 310
Anchorage, AK 99501

RE: LONS 18-003, Oil Search Alaska LLC, Pikka Unit, Pikka C, 2018-2019 Winter Exploration Drilling Program Unit Plan of Operations Decision.

Dear Mr. Conway:

I. INTRODUCTION

On October 1, 2018, Oil Search Alaska, LLC (OSA) submitted a request to the Division of Oil and Gas (Division) for approval of a Unit Plan of Operations (Plan) to carry out the Pikka C 2018-2019 Winter Exploration Drilling Program in the Pikka Unit (PK). The Pikka C site is approximately 15 miles northeast of the village of Nuiqsut. Approval of the Plan, along with approvals from other local, State, and federal agencies (Agencies), is necessary for OSA to carry out this project. Any further exploration is subject to additional review and approval by the Department of Natural Resources (DNR).

II. SCOPE OF DECISION

The DNR Commissioner has delegated authority for approval of Plan activities to the Division under Department Order 003 in accordance with Alaska Statute (AS) 38.05 and 11 Alaska Administrative Code (AAC) 83.346. The Division has evaluated the proposed Plan to determine if sufficient information, as required by 11 AAC 83.346, is provided. The Division has also considered that criteria set forth in 11 AAC 83.303. In approving a Plan, the Division may require amendments that it determines are necessary to protect the State's interests (11 AAC 83.346(e)).

This Plan Decision (Decision) will review the Pikka C well, ice drilling pad, and associated operations necessary to conduct the proposed work on the drilling pad. The associated ice road and construction pad will be authorized by Kuukpik and other Agencies. In addition to the initial well, OSA proposes to drill one sidetrack from the single surface hole. All wells will be drilled to a True Vertical Depth of approximately 5,000 feet, and plugged and abandoned upon completion. The purpose of the drilling and testing activities is to better understand subsurface reservoir characteristics in the PK.

The following Plan elements require authorization from other agencies:

Agency	Permit(s)
Alaska Oil and Gas Conservation Commission (AOGCC)	Permit to Drill and Sundry
Alaska Department of Environmental Conservation (ADEC)	Oil Discharge Prevention and Contingency Plan Temporary Drilling Waste Storage MG-2 Minor Air Quality Permit Stormwater Pollution Prevention Plan
Alaska Department of Fish and Game (ADFG)	Fish Habitat Permits Public Safety Permit
DNR Division of Mining, Land & Water	Land Use Permit - Ice Roads and Pads Land Use Permit - Temporary Staging and Storage Temporary Water Use
DNR Office of History and Archaeology (OHA)	Cultural Resource Surveys and Clearance
North Slope Borough (NSB)	Development Permits and Administrative Approvals TLUI Clearance
US Environmental Protection Agency (EPA)	Spill Prevention, Control, and Countermeasures Plan
US Fish and Wildlife Service (USFWS)	Polar Bear Letter of Authorization for Incidental/Intentional Take

III. LAND STATUS

The PK comprises State and non-State lands.

- A. Division's Leased Lands: This section refers to Division managed oil and gas leases regardless of ownership of overlying surface lands.

Oil and Gas Lease: 393006

Oil and Gas Mineral Estate Lessee(s): OSA

Surface Ownership and Access Agreement: Kuukpik Corporation

Special Use Lands: N/A

Jointly Managed Lands: State/Arctic Slope Regional Corporation (ASRC) Subsurface

Other Considerations: None

Project Components	Meridian, Township, Range, & Section(s)	GPS Coordinates
Wellbore	Umiat, T12N, R6E, Sec. 16	N/A (Linear)
Pikka C Drill Site (surface hole location)	Umiat, T12N, R6E, Sec. 16	70 23' 39"N; 150 37' 16"W
Ice roads	Umiat, T12N, R6E, Sec. 16	N/A (Linear)

Oil and Gas Lease: 392999

Oil and Gas Mineral Estate Lessee(s): OSA

Surface Ownership and Access Agreement: Kuukpik Corporation

Special Use Lands: N/A

Jointly Managed Lands: State/ASRC Subsurface

Other Considerations: None

Project Components	Meridian, Township, Range, & Section(s)	GPS Coordinates
Pikka C Sidetrack 1 Wellbore	Umiat, T12N, R6E, Sec. 9	N/A (Linear)

Oil and Gas Lease: 393002

Oil and Gas Mineral Estate Lessee(s): OSA

Surface Ownership and Access Agreement: Kuukpik Corporation

Special Use Lands: N/A

Jointly Managed Lands: State/ASRC Subsurface

Other Considerations: None

Project Components	Meridian, Township, Range, & Section(s)	GPS Coordinates
Pikka C Sidetrack 1 Wellbore	Umiat, T12N, R6E, Sec. 8	N/A (Linear)

Oil and Gas Lease: 391454

Oil and Gas Mineral Estate Lessee(s): OSA

Surface Ownership and Access Agreement: Kuukpik Corporation

Special Use Lands: N/A

Jointly Managed Lands: State/ASRC Subsurface

Other Considerations: None

Project Components	Meridian, Township, Range, & Section(s)	GPS Coordinates
Pikka C Sidetrack 1 Wellbore	Umiat, T12N, R6E, Sec. 17	N/A (Linear)

B. State of Alaska Surface Lands: This section refers to State owned surface lands where no Division managed oil and gas leases exist.

Not applicable to this project.

C. Non-State Lands: This section refers to areas where the State does not own the surface land and no Division-managed oil and gas leases exist.

Not applicable to this project.

IV. PROPOSED OPERATIONS

The Plan describes the proposed operations in full detail. Set forth below is a summary of the key details.

A. Sequence and Schedule of Events

Project Milestone #	Project Milestone	Proposed Start Date	Proposed End Date
1	Ice road and ice staging pad construction	11/1/2018	1/1/2019
2	Drilling ice pad construction	12/1/2018	12/15/2018
3	Mobilization of drilling equipment	12/15/2018	2/1/2019
4	Drilling operations	1/1/2019	4/15/2019
5	Well stimulation and testing	2/1/2019	4/15/2019
6	Plug and abandonment, demobilization, and winter site cleanup	4/15/2019	4/30/2019
7	Summer site cleanup	6/15/2019	9/1/2019

OSA proposed the following schedule for the 2018-2019 drilling season. All dates are approximate and may be altered by weather or logistic requirements. The dates will also change because some of them precede this decision. The schedule provides the Division with an overall idea of the sequence and schedule of events. The Division reviewed this schedule with the expectation that dates early in the sequence would move back and that later dates for finishing drilling, demobilization, and clean up would remain the same.

B. Well Sites

A temporary 10-acre ice pad will be constructed to accommodate drilling operations. The drilling ice pad will be connected to all season gravel roads from Mustang Pad using an ice road. Well stimulation and flow testing may be performed, if deemed appropriate. Upon completion of drilling activities, the well will be plugged and abandoned prior to demobilization from the site. The planned well design will be similar to that employed in previous exploration wells and in accordance with a Permit to Drill from the AOGCC.

C. Buildings

Pikka C will require the following infrastructure to be installed on the pad: drilling rig (Nabors Rig #105 or similar), maintenance buildings, storage Conexes, camps, office buildings, a communication tower, and other small temporary support structures. All buildings will be transported to the project site from Deadhorse during mobilization and will be removed at the completion of the drilling operations.

D. Fuel and Hazardous Substances

State and federal regulations require that a number of contingency plans be in place for drilling operations. Specific details of the facilities, spill risks, potential impacts, and mitigation measures are provided in these various plans. Small (typically 10,000 gallons or less) ultra-low

sulfur diesel (ULSD) and unleaded gasoline storage tanks will be installed at the construction ice pad, the staging ice pad, and the drilling ice pad to provide fuel for project equipment and vehicles. Crude oil testing tanks would be installed at the well site (typically 400-barrel capacity) for flow testing of the well. The drill rig contains several large fuel tanks to power the rig generators and heaters. Onsite hazardous chemicals, typical of a drilling exploration program, will be stored in 55-gallon drums or larger totes prior to use. All fuel and hazardous chemicals will be stored inside a secondary containment with a capacity to hold 110 percent of the volume of the largest tank. Fuel and oil will be managed and transferred as mandated by the ADEC Oil Discharge Prevention Contingency Plan and project-specific Spill Prevention Control and Countermeasure Plan. Drip pans will be placed beneath vehicles and equipment when not in use. All containers will be properly labeled.

E. Solid Waste Sites

The majority of waste generated during drilling operations will consist of water-based and oil-based drilling mud and cuttings. Waste will be stored onsite, in accordance with an ADEC temporary storage permit, until it can be properly disposed. Waste injection and disposal facilities (Class 1 and Class 2) from other operators on the North Slope will be used by contractual arrangement. All other waste will be disposed of at approved facilities, including the NSB SA-10 facilities. Hazardous waste will be disposed in accordance with EPA regulations. There will be no solid waste disposal at the project site.

F. Water Supplies

Fresh water will be utilized from permitted water sources for ice road and pad maintenance and construction, drilling, and camp operations. Lake water sources planned for use this winter include Lakes K210, L9129, M1322, M1323, M1407, M1408, M9620, MC7903, MM1850, MM1880, and MM1853. Pre-treated potable water will be purchased primarily from off-site existing water suppliers and shipped to the site. OSA estimates that 50-60 gallons of water per person will be required daily. Raw lake water and ice chips will be obtained in accordance with DNR Temporary Water Use Authorizations and ADFG Fish Habitat Permits. Wastewater will be hauled to Deadhorse for treatment and disposal at NSB facilities.

G. Utilities

Power will be generated on site using portable generators. Communication towers and equipment will be provided by a telecommunications contractor.

H. Material Sites

Due to its temporary, exploratory nature, no material sites will be used.

I. Roads

Approximately 16 miles of ice roads will be constructed using water and ice chips from nearby lakes. The main ice road will be approximately 35 feet wide. Ice crossings of fish-bearing streams will be constructed in accordance with Fish Habitat Permits from ADFG and Temporary Water Use Authorizations from DNR. An ice-bridge crossing of the East Channel of the Colville River will be required to access the Pikka C well site. At a minimum, water depth, ice thickness, and water quality will be monitored every two weeks along the ice-bridge alignment as well as upstream and downstream of the crossing. Existing gravel roads will be used whenever possible.

J. Airstrips

All personnel and supplies will be transported to the area via existing infrastructure. The Deadhorse Airport (SCC) will be the primary location for all air transport.

K. All Other Facilities and Equipment

A construction ice pad will be built at the start of the ice road, near the existing gravel Mustang Pad. This pad will contain a camp, telecommunications equipment, and a security shack, and will be used to support ice road construction and ongoing maintenance activities. A staging ice pad will be constructed at milepost six of the ice road and will contain a temporary camp and staging and storage area.

L. Rehabilitation Plan

The proposed operations are temporary and exploratory in nature and conducted from ice pads and ice roads that will melt during spring break-up. In accordance with federal, State, and local agencies, all spills will be reported and cleaned up immediately. OSA will remove all structures, materials, and debris from ice pads and roadways prior to spring break-up in May 2019. A follow-up survey will be conducted in the summer to remove any remaining debris and monitoring equipment from the tundra surface. When drilling and evaluation operations are complete, the well will be plugged and abandoned, in accordance with AOGCC regulations. Any winter tundra damage will be reported to the landowner and the NSB, as required by permits, and any required restoration and rehabilitation will be coordinated accordingly. The areas of operation will be inspected by local and State inspectors in late summer after cleanup efforts are complete. Any areas of previously undiscovered tundra disturbance will be identified and discussed with the land owner and the North Slope Borough to determine appropriate remediation and restoration activities that may be required.

M. Operating Procedures Designed to Minimize Adverse Effects

Fish and Wildlife Habitats: Ice pads and ice roads are to be used only in winter months. Streams will be crossed in shallow areas that normally freeze to the bottom. The ice road route and drilling pad locations were selected to avoid willow habitats and to be as far away from the banks of the Colville River as practicable. A Wildlife Interaction Plan will be developed and implemented to minimize conflicts with wildlife.

Historic and Archaeological Sites: Cultural resource surveys were conducted in August 2017 and July 2018. These surveys and proposed ice road and pad locations were coordinated with DNR OHA and NSB. The ice road route and drilling pad locations were selected to avoid known cultural resource sites, with one exception. The ice road route intersects the Colville #1 Peat Road (HAR-00173), a 46-mile-long historic road, at approximately mile 2.7 of the ice road. In 2017, the resource was recommended as eligible for the National Register of Historic Places and received State Historic Preservation Officer (SHPO) concurrence. Because of the type of resource and its length, the SHPO determined that an ice road intersecting HAR-00173 would not adversely affect the resource (File No. 3130RNSB – 2016-01264, and 3130-2RDMLW – 2017-01045). To avoid adverse effects, the ice road crossing of the Peat Road was selected at a location where the road has subsided and is no longer visible. Should cultural resources be discovered during project activities, work in the vicinity of the find will cease, the OHA and SHPO will be notified, and a professional archaeologist will be consulted.

Training Programs: OSA and all other field personnel will be North Slope Training Cooperative (NSTC) trained. NSTC training addresses the following topics: camps and safety orientation, use of personal protective equipment, hazard communication, pipeline awareness, environmental excellence, and hazardous waste awareness. OSA will have trained staff on site at all times that are familiar with project-specific subsistence, environmental, social, and cultural concerns and will periodically provide awareness training and oversight to contractors and subcontractors as it pertains to their scope of work.

Public Use Areas: Public use of the area during the winter is primarily limited to local subsistence activities. Subsistence representatives will be available onsite during operations to identify potential conflicts and minimize impacts to subsistence activities.

Other Uses: The only other uses in the general area will be possible activities by other oil and gas companies or geophysical companies. If identified, OSA will coordinate with those companies to discuss and avoid operational problems with concurrent activities.

In approving a Plan, DNR may require amendments necessary to protect the State's interest (11 AAC 83.346(e)). The Division has determined that to protect the State's interest, it is necessary to incorporate the 2018 North Slope Areawide Mitigation Measures. OSA addressed these mitigation measures in the application process, but it is necessary to amend the Plan to make clear that the Plan incorporates the North Slope Areawide Mitigation Measures.

All Plan applicants must complete a mitigation measure analysis demonstrating that each mitigation measure is satisfied or inapplicable to the proposed Plan, or that the applicant is seeking an exception. The North Slope Areawide Mitigation Measures allow for the Division to grant an exception if the applicant shows that compliance with the measure is not practicable or that the applicant will undertake an equal or better alternative to satisfy the intent of the mitigation measure. OSA completed the mitigation measure analysis for the North Slope Areawide and seeks exceptions to the mitigation measures discussed below.

North Slope Mitigation Measure: A.1.d

The siting of facilities, including roads, airstrips, and pipelines, is prohibited within one-half mile of the coast as measured from the mean high water mark and 500 feet of all fish-bearing waterbodies.

OSA provided the below request and explanation for the exception:

All facilities are greater than one-half mile from the coast. The drilling location is a temporary site on an island within the banks of the Colville River and is within 500 feet of the Colville River, a fish-bearing waterbody. The ice road to the Pikka C drilling site is also within 500 feet of various fish-bearing streams and lakes. Approval under ADFG Fish Habitat Permits will be obtained for all ice road crossings of and water withdrawal from fish-bearing waterbodies.

North Slope Mitigation Measure: A.1.e

Notwithstanding (d) above, the siting of facilities is prohibited within one-half mile of the banks of the Colville, Canning, Sagavanirktok, Kavik, Shaviovik, Kadleroshilik, Echooka, Ivishak,

Kuparuk, Toolik, Anaktuvuk and Chandler Rivers as measured from the ordinary high water mark. Facilities may be sited, on a case-by-case basis, within the one-half mile buffer if the lessee demonstrates that siting of such facilities outside this buffer zone is not feasible or prudent, or that a location within the buffer is environmentally preferable.

OSA provided the below request and explanation for the exception:

As noted above, the drilling location is within one-half mile of the Colville River. The project area will be used to drill a temporary well during the winter when adequate ice thickness is present on all waterbodies. Other than cleanup activities during the following summer, no activities will occur at the location after completing the winter drilling operations. The drilling and ice road locations inside of the buffer are the most environmentally preferred when compared to other alternatives. The drilling location was selected to minimize the amount of ice bridges and channel crossings required, while still being able to reach targeted drilling locations. The ice road and lake water access spur locations were selected as the environmentally preferred route, in order to avoid sensitive willow habitats and to cross streams at shallow areas where ice will naturally ground to the stream bed or will remain deep enough throughout the winter to allow free passage of any over-wintering fish.

The intent of these measure is to minimize impacts to the tundra, protect it from contamination from a fuel or hazardous substance spill or leak, and to reduce habitat loss through erosion or other disturbances from facility construction and placement. The Division finds that OSA has shown rationale that proposed activities in the Plan equally satisfy the intent of these mitigation measures. OSA proposes to site a temporary exploration facility within one-half mile from the Colville River and build an ice road within 500 feet of fish-bearing streams at stream crossing locations. The Division grants an exception to these mitigation measures to allow for the Applicant's alternative as set forth in the Plan. This exception does not apply to activities that the Applicant may propose in future or amended plans of operations.

The Division has determined that to protect the State's interest, it is necessary to incorporate into the Plan the 2018 North Slope Areawide Mitigation Measures as amendments and stipulations to this Plan (11 AAC 83.346(e)).

V. CONSIDERATION OF UNIT PLAN OF OPERATIONS REQUIREMENTS UNDER 11 AAC 83.346(c-d) and 11 AAC 83.390

A. Full Payment of Damages to the Surface Owner 11 AAC 83.346(c)
For Kuukpik Corporation, OSA has a letter of non-objection. Thus OSA has provided for full payment of damages prior to starting operations (11 AAC 83.346(c)).

B. Plan Sufficiency 11 AAC 83.346(d)
A proposed plan must include statements, maps, or drawings setting forth

- (1) the sequence and schedule of operations;
- (2) the projected use requirements directly associated with the proposed operations;
- (3) plans for rehabilitation; and
- (4) a description of operating procedures to prevent or minimize adverse effects on natural resources and concurrent uses of the area (11 AAC 83.346(d)).

The information in section IV. Proposed Operations, and additional information contained in OSA's proposed Plan, satisfy the requirements for a plan under 11 AAC 83.346(d) and thus provide the Division with sufficient information available at this time to determine the surface use requirements and impacts directly associated with the proposed operations.

C. Oil and Gas Lease Bond 11 AAC 83.390

The State owns a portion of the mineral estate the Plan proposes to explore from. For the State, a lessee provides for payment of damages by posting a bond, and remains liable for full damages under the lease. OSA has a Statewide Oil and Gas Bond in the amount of \$500,000 and continuing liability under the lease.

VI. CONSIDERATION 11 AAC 83.303 CRITERIA

A. Protection of Public Interest

The Division has considered the public interest, taking into account statutory provisions that provide for conserving natural resources through unitized development (11 AAC 83.303(a); AS 38.05.180(p)). The legislature has declared the public's interest in oil and gas development as an interest in developing oil and gas resources to maximize economic and physical recovery, maximize competition, and maximize use of Alaska's human resources (AS 38.05.180(a)(1)).

This Plan addresses the means for carrying out the Pikka C, which, as determined by the 2019 Plan of Exploration (POE), is necessary for maximizing recovery of the oil and gas resources. Additionally, exploration under this Plan will contribute positively to the market by increasing overall oil and gas production in the area.

The proposed Plan provides for use of Alaska's human resources by pledging to provide local employment and contracting opportunities and to encourage its contractors to do the same (Proposed Plan Mitigation Measure Analysis A.7.a).

B. Conservation of Natural Resources

The Division has considered whether the Plan promotes conservation of all natural resources, including all or part of an oil or gas Plan, field, or area (11 AAC 83.303(a)(1)). Conservation, in this context, means maximizing the efficient recovery of oil and gas and minimizing the adverse impacts on the surface and other resources (11 AAC 83.395(1)). Exploration within a unit is intended to provide more efficient exploration than on the individual leases that make up the unit, and this Plan considers the exploration of the Unit, not single leases. Efficient exploration creates less impact on the land and promotes maximum use of all natural resources in the area, consistent with the public interest.

There are several ways in which the Plan seeks to minimize adverse impacts on natural resources. This Plan incorporates the mitigation measures set forth in the North Slope Areawide Oil and Gas Lease Sale Final Finding. These include measures to protect habitat, fish, and wildlife; protect subsistence resources; and limit the impact from fuel and hazardous substances (North Slope Areawide Final Findings at Sections 9-2 – 9-5). The Plan also includes operating procedures to prevent or minimize adverse effects, including effects on the environment, wildlife, and subsistence resources discussed in section IV.M of this decision.

C. Prevention of Economic and Physical Waste

The Division has considered whether the Plan promotes the prevention of economic and physical waste (11 AAC 83.303(a)(2)). Issues of economic and physical waste are carefully considered during Unitization and annually thereafter in the POE and POD. This plan conforms to the current PK POE on file with the Division's Units Section.

D. Protection of All Parties of Interest, Including the State

The Division has considered whether the Plan provides for the protection of all parties of interest, including the State (11 AAC 83.303(a)(3)). The parties of interest to a unit plan are the unit operator and working interest owners. The State has an economic interest in the oil and gas resources because it receives royalties from production. It is further in the State's best interest to encourage assessment of oil and gas resources, recognize the costs of exploring in varied geographic regions, and minimize the adverse impact of exploration, development, production, and transportation activity (AS 38.05.180(a)(2)).

Without approval of a Plan, OSA cannot explore PK, and the State cannot recover royalties from that exploration. The Plan thus protects the Unit Operator's, working interest owners' and the State's interests in developing the resources.

E. Environmental Costs and Benefits

The Division has considered the environmental costs and benefits of unitized exploration outlined in this Plan and through the POE (AAC 83.303(b)(1)); this Plan conforms to the current POE on file with the Division's Units Section.

The North Slope Mitigation Measures, incorporated into this Plan by amendment, include measures to protect habitat, fish, and wildlife (North Slope Areawide Final Finding, Section 9-2). Additional operating procedures designed to minimize adverse effects on other natural resources and other uses of the unit area and adjacent areas are discussed in section IV.M of this decision.

F. Geological and Engineering Characteristics of Hydrocarbons

DNR previously considered the geological and engineering characteristics of a potential hydrocarbon accumulation or reservoir when it approved the unit agreement (11 AAC 83.303(b)(2)); this Plan conforms to the current POE on file with the Division's Units Section.

G. Prior Exploration Activities

The Division has considered prior exploration activities in the Plan area pursuant to 11 AAC 83.303(b)(3). Exploration drilling in the Pikka C project area has been limited. In 2016, Armstrong withdrew the Pikka 1 exploration well project. In early 2017, Armstrong drilled Horseshoe #1, approximately 17 miles southwest of Pikka B drill site. In early 2018, Pikka 2, now Pikka B, was postponed until 2018-2019 winter season.

H. Plan of Exploration

The Division has considered the plans for exploration set forth in and approved by DNR in the POE (11 AAC 83.303(b)(4)). The current POE approved on September 28, 2018 approves OSA to carry out operations in the proposed Plan.

I. Economic Costs and Benefits to the State

The Division has considered the economic costs and benefits to the State (11 AAC 83.303(b)(5)). Without approval of a plan, OSA will be unable to proceed with developing PK, which will cost the State the economic benefit of the royalties, as well as other economic benefits that flow from production.

J. Other Relevant Factors to Protect the Public Interest

The Division has considered other relevant factors necessary or advisable to protect the public interest (11 AAC 83.303(b)(6)). These other factors consist of the mitigation measures (section IV.M of this document) that will apply to this Plan, and the existence of other approvals by Agencies (Section IV).

VII. CONSULTATION WITH OTHER GOVERNMENT ENTITIES

In reviewing the proposed Plan, the Division considered the fact that OSA may require approvals from Agencies for other elements of its project. Although mentioned in the Plan and above, these aspects of the project are not operations being approved by this decision, and the Division offers no opinion on whether an agency should or should not approve these activities.

In addition to considering the approvals required by Agencies as they relate to this decision, the Division provided an Agency review and comment opportunity for the activities proposed for authorization under this decision. The following government entities were notified on October 5, 2018, for comment on the Plan: U.S. Army Corps of Engineers (USACE), NSB, Kuukpik Corporation, ASRC, ADFG, ADEC, and DNR DMLW and DOG. The comment deadline was 4:30 pm Alaska time on October 19, 2018. No comments were received.

VIII. CONDITIONS OF APPROVAL

Having considered the proposed project, the Division approves the Plan as amended and modified by this decision and subject to the below conditions of approval.

To protect the State's interest, the Division finds that it is necessary to amend the Plan to incorporate the following Conditions of Approval:

- a) The applicant shall defend, indemnify and hold the State of Alaska harmless from and against any and all claims, damages, suits, losses, liabilities and expenses for injury to or death of persons and damage to or loss of property arising out of or in connection with the entry on and use of State lands authorized under this approval by the applicant, its contractors, subcontractors and their employees.
- b) The applicant shall inform and ensure compliance with any and all conditions of this approval by its employees, agents and contractors, including subcontractors at any level.
- c) Unless pre-authorized by a general permit, amendments and modifications to this approval require advance notice and must be approved in writing by the DNR.
- d) The DNR Commissioner may require that an authorized representative be on site during any operations conducted under this approval. This stipulation is required to ensure that the DOG and DMLW meet their statutory responsibilities for monitoring activities taking place on State-owned lands.
- e) A status report for the activities conducted under this approval must be filed with this office on May 1 and November 1 each year, from the date this approval is issued and

until a final completion report is filed with the Division. If a lessee requests an assignment, a status report must also be submitted during the assignment process. Failure to file in a timely manner may result in revocation of this approval.

- a. Each status report shall include a statement describing and map(s) depicting all operations actually conducted on the leased area as of the date the report is prepared, which includes the location, design and completion status of well sites, material sites, water supplies, solid waste sites, buildings, roads, utilities, airstrips, and all other facilities and equipment installed.
- b. Upon completion of operations, the applicant will submit a completion report that includes all information required of a status report described in (a) above as well as a statement indicating the date of operations completion, any noncompliance with the terms of this plan approval of which a reasonable lessee would have knowledge of, clean-up activities conducted, the method of debris disposal, and a narrative description of known incidents of surface damage.
- f) The applicant shall notify the DNR of all spills that must be reported under 18 AAC 75.300 under timelines established therein. All fires and explosions must be reported to DNR immediately. The DNR 24-hour spill report number is (907) 451-2678; the fax number is (907) 451-2751. The Department of Environmental Conservation (DEC) oil spill report number is (800) 478-9300. DNR and ADEC shall be supplied with all follow-up incident reports.
- g) A certified As-Built survey of the improvement shall be provided within one year of placement of the improvement. This As-Built must contain a hardcopy, as well as a digital GIS file containing a Shapefile or ESRI Feature Class.

IX. FINDINGS AND DECISION

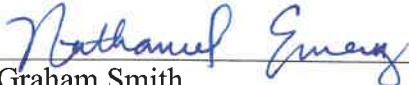
Having considered the proposed project and based on the foregoing discussion and consideration of issues and conditions of approval, the Division makes the following findings.

1. The Plan provides sufficient information, based on reasonably available data, for the Division to determine the surface use requirements and impacts directly associated with the proposed operations.
2. The Plan includes statements, maps, or drawings setting forth the sequence and schedule of operations, projected use requirements, description of operating procedures, and a plan of rehabilitation designed to prevent or minimize adverse effects.
3. To protect the State's interest and mitigate potential adverse social and environmental effects associated with the Plan, the Division finds it necessary to amend the Plan to incorporate the mitigation measures set forth in the North Slope Areawide Oil and Gas Lease Sale Final Finding.
4. All oil and gas activities conducted under oil and gas leases are subject to numerous local, State and federal laws and regulations with which OSA is expected to comply.
5. The people of Alaska have an interest in developing the State's oil and gas resources and maximizing the economic and physical recovery of those resources (AS 38.05.180(a)).
6. Alaska's economy depends heavily on revenues related to oil and gas production and government spending resulting from those revenues. The related revenue sources include bonus payments, rentals, royalties, production taxes, income taxes, and oil and gas property taxes.

7. The potential benefits of approving this Plan outweigh the possible adverse effects, which have been minimized through imposition of mitigation measures, conditions of approval, and project specific stipulations, and thus approval of this Plan as modified is in the State's best interest.

Based upon the Plan, supporting information provided by the applicant and the Division's review, determination of applicable statutes and regulations, consultation with other agencies, relevant entities and individuals, public comment, and the above findings related to that Plan, the Division hereby approves the Plan.

Sincerely,

for 
Graham Smith
Permitting Section Manager
Division of Oil and Gas

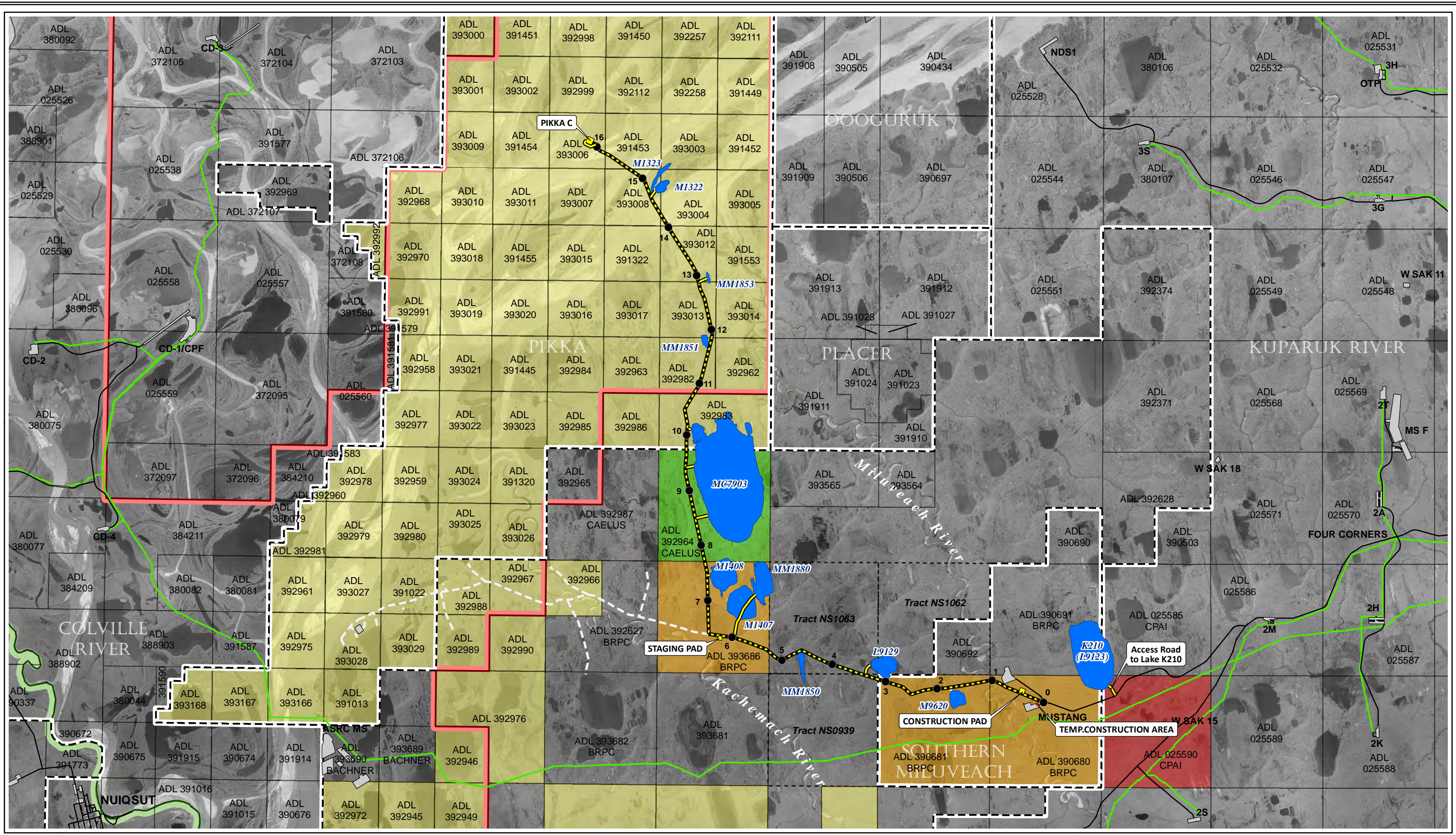
November 16, 2018
Date

Appeal

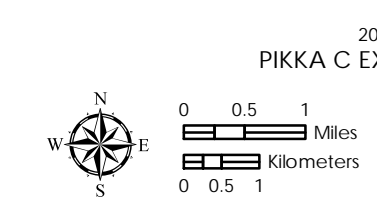
An eligible person affected by this decision may appeal it, in accordance with 11 AAC 02. Any appeal must be received within 20 calendar days after the date of issuance of this decision, as defined in 11 AAC 02.040(c) and (d), and may be mailed or delivered to the Commissioner, Department of Natural Resources, 550 W. 7th Avenue, Suite 1400, Anchorage, Alaska 99501; faxed to 1-907-269-8918; or sent by electronic mail to dnr.appeals@alaska.gov. This decision takes effect immediately. An eligible person must first appeal this decision in accordance with 11 AAC 02 before appealing this decision to Superior Court. A copy of 11 AAC 02 may be obtained from any regional information office of the Department of Natural Resources.

Attachments: Figures 1-4
2018 North Slope Mitigation Measures

ecc: DOG: Graham Smith, Nathaniel Emery, Mark Henspeter, Paul Blanche, Kevin Pike, and SPCO Records
DMLW: Melissa Head, Becky Baird, Henry Brooks, Kimberley Maher, and Clif Enochs.
ADFG: Jack Winters
ADEC: Laurie Silfven, dec.water.oilandgas@alaska.gov
NSB: Jason Bergerson, Josie Kaleak, and Matt Dunn
Other: regpagemaster@usace.army.mil, majorinor@live.com, and timmm@asrc.com

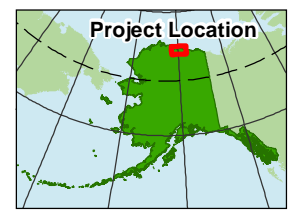


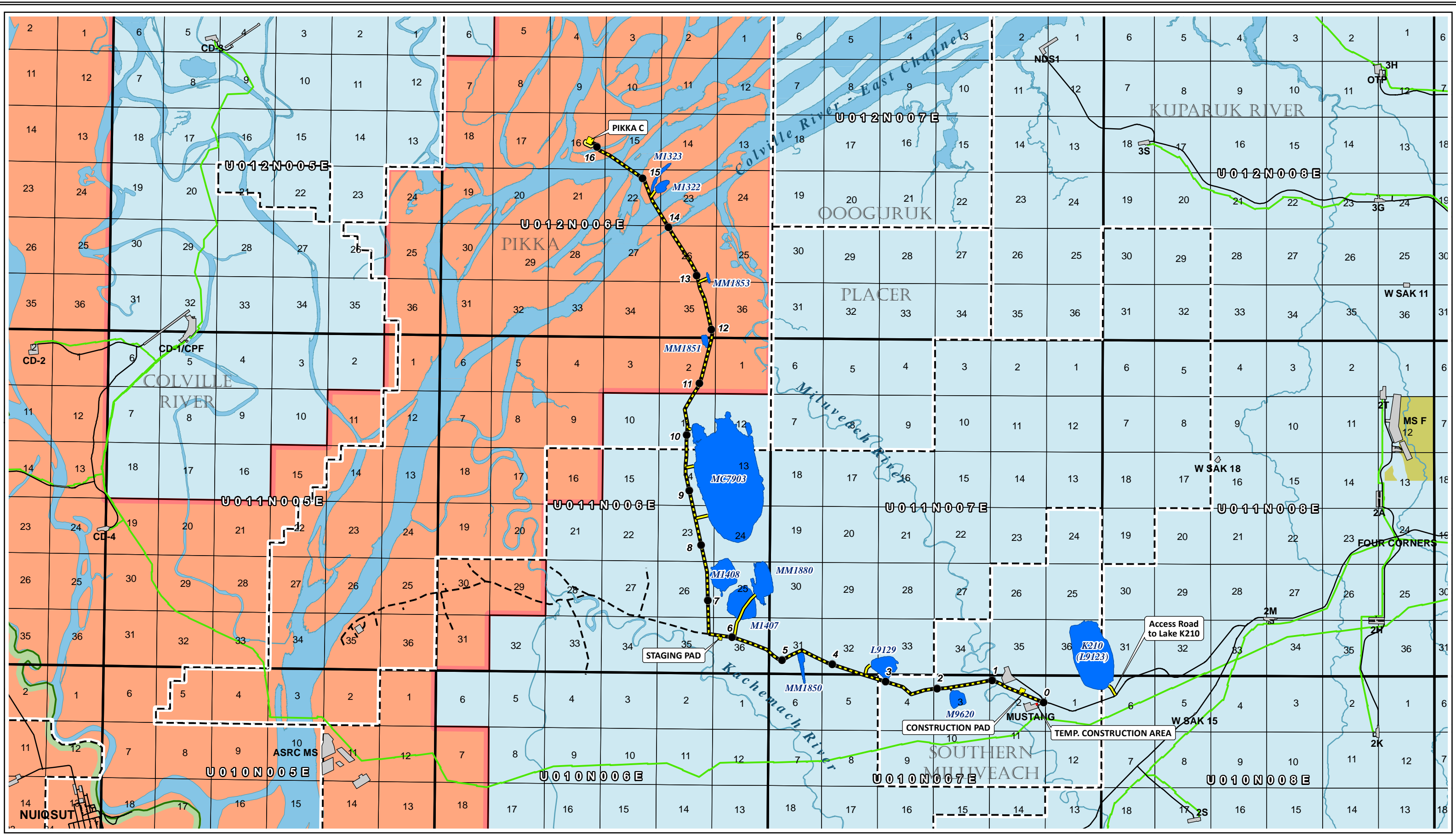
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- PIKKA C ICE PAD
- ICE ROAD OTHER
- PIKKA C ICE ROAD
- MAIN MILEPOST
- TENTH-OF-MILE
- EXISTING GRAVEL ROAD
- EXISTING PIPELINES
- PRODUCTION UNIT
- NPRA BOUNDARY
- KUUKPIK BOUNDARY
- LAKES TO USE
- OIL SEARCH LEASES
- BRPC
- CAELUS
- CPAI LEASES
- LEASE BOUNDARY
- TRACTS WITHOUT ADL



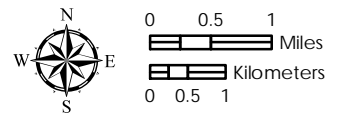
OIL SEARCH ALASKA LLC.
2018-2019 EXPLORATION CAMPAIGN
PIKKA C EXPLORATION CAMPAIGN OVERVIEW
Figure 1

GCS: NAD 1983 StatePlane Alaska 4 FIPS 5004 Feet
DATE: 10/1/2018 REV: 2.0 By: JB
Document name: EXPL-18-19-DF-M_POO_PC_CampaignOverview_Leases_1-PIKKA-C





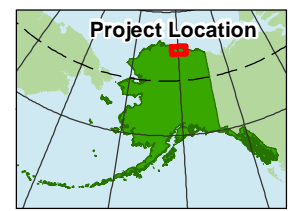
- ICE PAD OTHER
- PIKKA C ICE PAD
- TEMP. CONSTRUCTION AREA
- ICE ROAD OTHER
- PIKKA C ICE ROAD
- MAIN MILEPOST
- TENTH-OF-MILE
- LAKES TO USE
- GRAVEL PAD
- EXISTING GRAVEL ROAD
- EXISTING PIPELINES
- PRODUCTION UNIT
- NPRA BOUNDARY
- SECTION
- TOWNSHIP
- KUUKPIK BOUNDARY
- KUUKPIK SURFACE-STATE/ASRC SUBSURFACE LANDS
- MUNICIPAL ENTITLEMENT
- STATE SURFACE AND SUBSURFACE LANDS









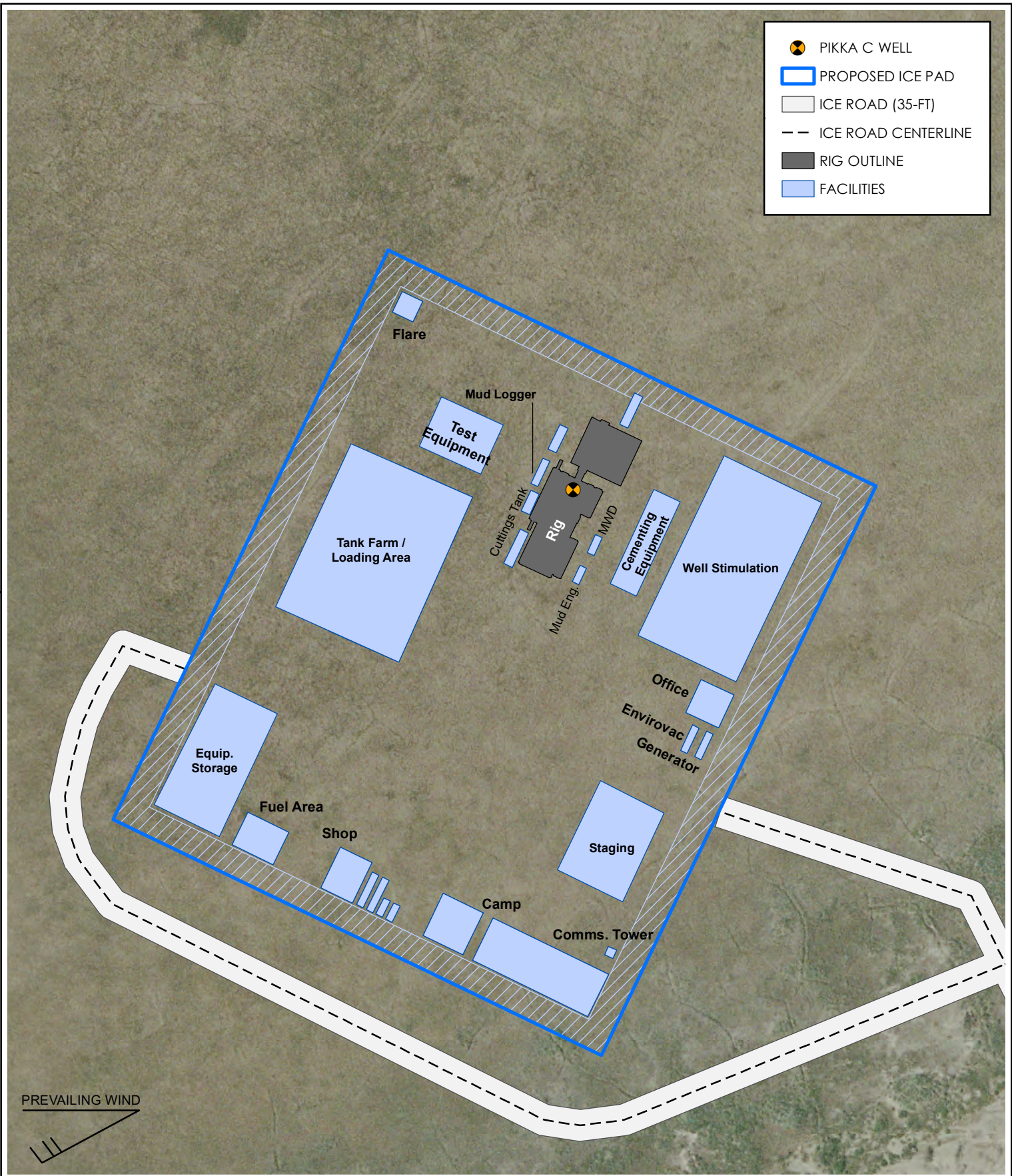
OIL SEARCH ALASKA LLC.
2018-2019 EXPLORATION CAMPAIGN
PIKKA C - LAND OWNERSHIP

Figure 2

GCS: NAD 1983 StatePlane Alaska 4 FIPS 5004 Feet
DATE: 10/11/2018, REV: 1.0, By: JB
Document name: EXPL-18-19-DF-AL_POD_PC_MTRS_2-PIKKA-C



-  PIKKA C WELL
-  PROPOSED ICE PAD
-  ICE ROAD (35-FT)
-  ICE ROAD CENTERLINE
-  RIG OUTLINE
-  FACILITIES

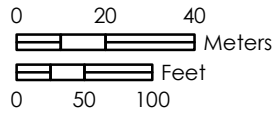


OIL SEARCH ALASKA LLC.
2018-2019 Exploration Campaign

Figure 3: Pikka C Layout Plan



GCS: NAD 1983 StatePlane Alaska 4 FIPS 5004 Feet
DATE: 9/27/2018, REV: 4.2, By: JB
Document name: EXPL-18-19-P-PE-M_PikkaC_layout



FILE: M:\Surveying\80179.18 SCC Pikka & Horseshoe Survey Support\Drawings\80179.18_PIKKA C Site Topo_Well Exhibit_kvd.dwg
 PRINTED: 09/28/2018 09:20 aian.griffin LAYOUT: PIKKA-C-AB XREFS: None IMAGES: OIL_SEARCH LOGO.JPG UMIAQ D&MS_2015-12_B&W.JPG

NOTES

1. DATE OF FIELD SURVEY 7-27-2018 TO 7-28-2018.
 2. BASIS OF COORDINATES PER OPUS SOLUTION OF STATIC GPS OBSERVATIONS 7-28-2018.
 3. LOCATED WITHIN PROTRACTED SEC. 16, T.12N., R.6E., UMIAT MERIDIAN.
- 1,380' FROM EAST SECTION LINE, SEC. 16
 2,450' FROM NORTH SECTION LINE, SEC. 16

AS-STAKED PIKKA C LOCATION
 NAD-83 ZONE 4
 (VERTICAL = NAVD88 GEOID 12B)
 N 5994063'
 E 1564066'
 EL 11.23'

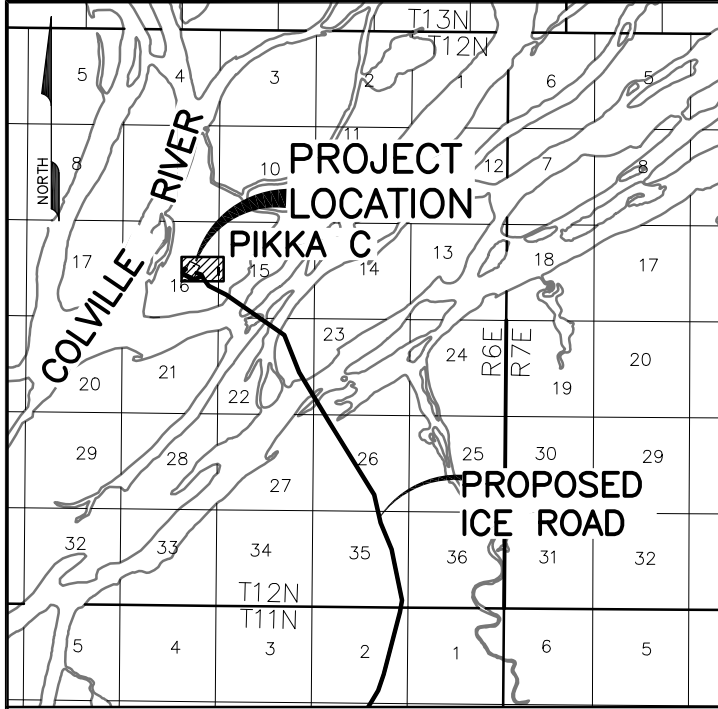
NAD-83
 N 70°23'39.6"
 W 150°37'16.5"

NAD-27 ZONE 4
 N 5994314'
 E 424034'

NAD-27
 N 70°23'40.7"
 W 150°37'05.1"

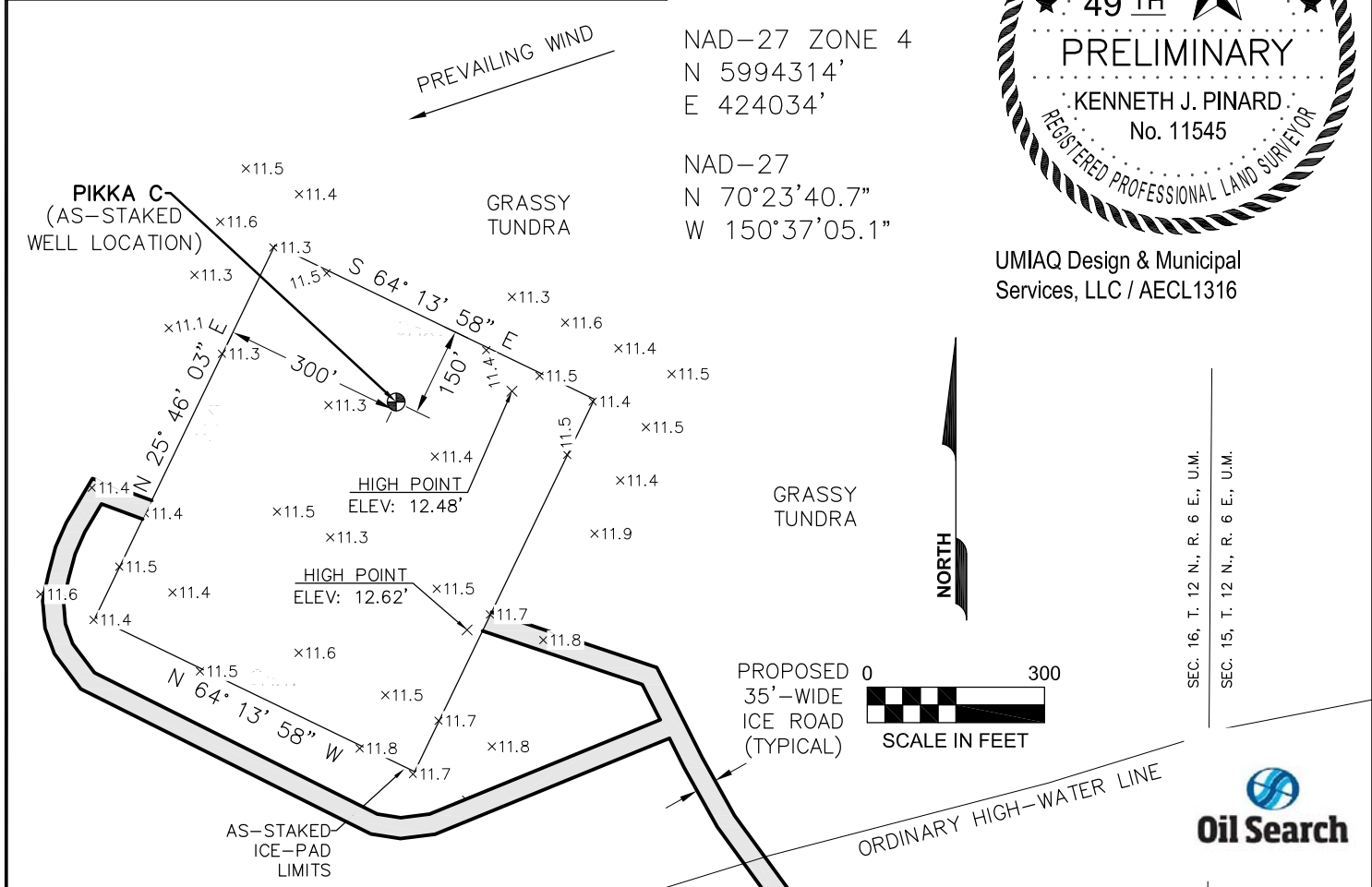


UMIAQ Design & Municipal Services, LLC / AECL1316



VICINITY MAP

Scale: 1" = 2 Miles



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**PIKKA C EXPLORATORY WELL
 SITE TOPOGRAPHIC SURVEY & AS-STAKED WELL LOCATION**

NORTH SLOPE, ALASKA

DATE:	09/28/18	DRAWN BY:	AJG	SHEET:	1 of 1
SCALE:	1"=300'	CHECKED BY:	AJG	JOB No:	80179.18

SEC. 16, T. 12 N., R. 6 E., U.M.
 SEC. 15, T. 12 N., R. 6 E., U.M.

