## **Department of Natural Resources**

Division of Oil & Gas

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September 16, 2015

David Wall President Accumulate Energy Alaska, Inc. PO Box 112212 Anchorage, AK 99511

# RE: LONS 15-001, Accumulate Energy Alaska, Inc. Icewine #1 Exploration Well, Lease Plan of Operations Decision, Exploration Phase

Dear Mr. Wall:

#### I. INTRODUCTION

On June 24, 2015 Accumulate Energy Alaska, Inc. (Applicant) submitted a request to the Division of Oil and Gas (Division) for approval of a Lease Plan of Operations (Plan) to carry out the drilling of the Icewine #1 Exploration Well. The Icewine #1 Exploration Well is approximately 30 miles south of Deadhorse adjacent to the Dalton Highway on the Franklin Bluffs gravel pad. Approval of this Plan, along with approvals from other state and federal agencies (Agencies), is necessary for Accumulate Energy Alaska, Inc. (AEA) to carry out the Icewine #1 Exploration Well. Any further exploration is subject to further review and approval by the Department of Natural Resources (DNR).

After state land is leased for oil and gas development, projects currently follow a phased progression. These phases may include exploration, development, production, and transportation. The Division continually examines effects of oil and gas activities as projects transition throughout each phase. Before the next phase of a project may proceed, public notice and opportunity to comment as well as Division approval is required. AEA's proposed operations would begin the Exploration phase for the subject project of this review.

#### II. SCOPE OF DECISION

The DNR Commissioner has delegated authority for approval of Lease Plan of Operations activities to the Division under Department Order: 003 in accordance with Alaska Statute (AS) 38.05 and 11 Alaska Administrative Code (AAC) 83.158. As set forth below, the Division has evaluated the proposed Plan to determine if it provides sufficient information as required by 11 AAC 83.158. In approving a Plan, the Division may require amendments that it determines are necessary to protect the State's interests (11 AAC 83.158(e)).

The Plan of Operations describes activities to drill one vertical well, Icewine #1, to core potentially petroliferous zones in both unconventional and conventional reservoirs on a lease operated by AEA during the 2015 season. The goal of this pilot drilling program is to analyze the potential productivity, deliverability, and commerciality of the greater Icewine project area. Depending on results from initial drilling and the time remaining in the season, AEA may drill a lateral well, sidetracks, or additional penetrations from the same exploration pad.

| Agency | Permit Type                                   |
|--------|---|
| AOGCC  | Permit to Drill                               |
| AOGCC  | Blowout Contingency Plan                      |
| AOGCC  | Sundry Approval                               |
| AOGCC  | Annular Disposal                              |
| ADEC   | Minor General Permit 1                        |
| ADEC   | Oil Discharge Prevention and Contingency Plan |
| ADEC   | Temporary Storage of Drilling Waste           |
| ADEC   | Temporary Storage of Non-Drilling Waste       |
| ADEC   | Waste Treatment Plan                          |
| ADEC   | Alaska Pollutant Discharge Elimination System |
| ADFG   | Public Safety Permit                          |
| ADFG   | Title 16 Permit                               |
| DMLW   | Land Use Permit (for snow/ice removal)        |
| DMLW   | Temporary Water Use Permit                    |
| DMLW   | Material Sale Contract                        |
| DOT&PF | Driveway Permit                               |
| EPA    | Spill Prevention, Control, and Countermeasure |
| NSB    | Land Management Regulations Permit            |
| NSB    | Wildlife Permit                               |
| NSB    | Cultural Resources Permit                     |
| SHPO   | Section 106                                   |
| USACE  | Section 404                                   |
| USFWS  | Migratory Bird Permit                         |

The following Plan elements require authorization from other Agencies:

## III. LAND STATUS

The exploration project area is comprised of state lands.

A. Division's Leased Lands:

Oil and Gas ADL: 392301

Oil and Gas Mineral Estate Lessee(s): Accumulate Energy Alaska, Inc.

Title Reports: DNR Title Reports (RPT 7571 and RPT 4218)

Special Use Lands: ADL 050666 – Division of Mining Land and Water Jointly Managed Lands: N/A

Other third party interests: Parties operating on or adjacent to the Franklin Bluff Pad:

ADL 418232 - Alyeska Pipeline Service Company

ADL 420360 - Alyeska Pipeline Service Company

- ADL 420360 Alyeska Pipeline Service Company ADL 414573 - Alyeska Pipeline Service Company LAS 030367 - Alyeska Pipeline Service Company ADL 063574 - Trans-Alaska Pipeline System ADL 418997 - Alaska Gasline Development Corp. ADL 415408 - Alaska Department of Transportation ADL 063826 - Alaska Department of Transportation ADL 412378 – State Land Survey ADL 414835 - North Slope Borough LAS 020644 - ADF&G Sport Fish LAS 027609 - Marsh Creek, LLC
- LAS 030135 SAExploration, Inc.

| Project Components          | Meridian, Township, Range,<br>& Section(s) | GPS Coordinates                             |
|-----------------------------|--|---|
| Icewine #1 Core Well        | UM T04N R14E S04                           | Lat: 69.717228, Long:<br>-148.702817 NAD 27 |
| Drill Rig                   | Same                                       | Same  |
| Camp Facilities and Staging | Same                                       | Same  |

#### IV. PROPOSED OPERATIONS

The Plan describes the proposed operations in full detail. The key details are summarized below.

A. Sequence and Schedule of Events

A table below displays AEA's proposed schedule for the 2015 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 nonetheless 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, but that later dates for finishing drilling, demobilization, and clean up would remain the same.

| Project<br>Milestone # | Project Milestone                             | Proposed Start<br>Date | Proposed End<br>Date |
|------------------------|---|------------------------|----------------------|
| 1                      | Pre-season reconnaissance                     | 7/1/2015               | 7/30/2015            |
| 2                      | Permitting                                    | 2/1/2015               | 9/15/2015            |
| 3                      | Potential maintenance of pad and access roads | 8/15/2015              | 8/31/2015            |
| 4                      | Mobilization of camp                          | 9/15/2015              | 9/30/2015            |
| 5                      | Mobilization of drilling rig                  | 9/15/2015              | 9/30/2015            |
| б                      | Exploration Drilling                          | 10/15/2015             | 12/15/2015           |
| 7                      | Demobilization                                | 12/15/2015             | 12/31/2015           |

#### B. Well Site

AEA plans to use the existing Franklin Bluffs pad/ White Hills staging area on Alaska's North Slope. The finalized location of the Icewine #1 well will ensure that there is no intersection with the Franklin Bluffs #1 drill path; a shallow well (Total Depth 1818') drilled in 2005 by the Bureau of Land Management, refer Figure 2 and 3. The Icewine #1 project is adjacent to the Trans-Alaska Pipeline (TAPS) and is 35 miles south of Pump Station 1. AEA's program will be located along the Dalton Highway transportation corridor within 1.5 miles of TAPS. AEA plans to use Nabors's 105AC drilling rig, or a rig with a similar specification. The wellbore design will take into consideration and be based upon relevant drilling data from neighboring North Slope exploration wells. No production facilities will be required for this project. A designated AEA representative will be located onsite during operations. Drilling operations will begin once well pad maintenance, including rig placement, has been completed. The well is planned as a single vertical well drilled into an unconventional shale oil zone and potential liquid conventional hydrocarbon zones. Well formation evaluations via open and cased hole logs will be performed during the course of drilling Icewine #1. In addition, a coring program is proposed for the evaluation of the unconventional objective and potentially within Brookian conventional reservoir targets. At the conclusion of all formation evaluation and well testing work scopes, the well will either be plugged, suspended, or abandoned in compliance with Alaska Oil and Gas Conservation Commission (AOGCC) regulations. Depending on results from initial drilling and the time remaining in the season, AEA may drill lateral wells, sidetracks, or additional penetrations from the same exploration pad. Production tests may be performed as appropriate in accordance with approved techniques by the AOGCC. Should this occur, AEA will submit an amended waste management plan to include produced fluid disposal best management practices.

#### C. Buildings

During the mobilization of the camp and drill rig, crews will be transported out of Deadhorse and no temporary camp facilities will be needed during this time. Once the mobilization of the camp and drill rig are complete, there are two scenarios for supporting facilities related to the Icewine #1 project:

1) AEA may utilize mobile camps staged at the Franklin Bluffs pad and/or White Hills staging pad under existing land use permits from the DMLW. AEA will work with DMLW and operator(s) to mitigate potential conflicts with use of the Franklin Bluff pad, ensure there is sufficient space for drilling operations, and that these camps obtain required permits to operate. In this scenario, the camp owner(s)/operator(s) may leave mobile camp components onsite depending on the project description associated with their land use permit and will be responsible for these project components once the agreement with AEA expires. Upon agreement expiration, AEA will work with the owner(s)/operator(s) to ensure the locations associated with the Icewine #1 project will be cleaned of all debris and potential contamination.

2) If the number one scenario discussed above is not an option, AEA will acquire and mobilize a support camp. AEA will likely have a camp facility at the Franklin Bluffs pad location for the duration of the program. Once the camp has been set up, all personnel will be at the Franklin Bluffs pad, minimizing traffic on the Haul Road. Under this scenario, at the end of the drilling program, all equipment associated with the project will be demobilized to Deadhorse via the

Haul Road. Locations with temporary infrastructure associated with the Icewine #1 project will be cleaned of all debris and potential contamination.

For both of the above scenarios, support facilities during the program may include a satellite office, storage areas (*e.g.*, fuel storage, drilling waste, or fluid components storage), up to an approximately 60-bed camp, and maintenance buildings. The camp will consist of offices, bathroom facilities, dining area, kitchen and food storage, recreation area(s), and laundry facilities. The camp will be equipped with a wastewater treatment plant and powered by a generator set with one stand-by generator set. Phone service and internet will be available at the field camp. Operations will be conducted 24 hours a day and will involve two shifts (one day and one night). The camp will be located on the pad for the duration of the project. Air emissions sources from the operation include rig engines, camp generator engines, steam generators, waste oil burners, hot-air heaters, light plants, and well test flaring equipment. AEA will conform with the Alaska Department of Environmental Conservation (ADEC) air permit requirements for exploration drilling at the Icewine #1 location and will comply with the stipulated parameters established under this authorization. With this Plan, AEA has requested that the Division approve posting a sign to the general public indicating that access to the area is restricted.

## D. Fuel and Hazardous Substances

Fuel will be stored on the Franklin Bluffs gravel pad. Fuel storage tanks will include secondary containment of bermed and impermeable lined fuel storage areas that will hold a minimum of 110 percent (110%) of the maximum capacity of fuel storage. Containers containing fuel or hazardous substances with an aggregated storage capacity of greater than 55 gallons will not be stored within 100 feet of a waterbody or within 1,500 feet of surface drinking water sources (no water sources have been identified near the Franklin Bluffs pad). Fuel flow diagrams, fuel transfer procedures, valving details, and safety precautions for the drill rig will be listed in the drilling contractor's Spill Prevention, Control, and Countermeasures (SPCC) Plan. Fuel storage, handling, transfers, and spill reporting will be conducted in accordance with the regulatory requirements as described in the Oil Discharge Prevention and Contingency Plan (ODPCP). During equipment storage or maintenance, the site will be protected from leaking or dripping fuel and hazardous substances using drip pans or other surface liners designed to catch and hold fluids under the equipment or by creating a specialized area using an impermeable liner or other suitable containment mechanism. AEA has requested that vehicle refueling be approved within the annual floodplain of the Sagavanirktok (Sag) River. During fuel or hazardous substance transfer, secondary containment or a surface liner will be placed under all container or vehicle fuel tank inlet and outlet points, hose connections, and hose ends. Appropriate spill response equipment, sufficient to respond to a spill of up to five gallons, will be on hand during any transfer or handling of fuel or hazardous substances. Drip pans will be placed under vehicles and equipment capable of leaking hazardous fluid. Trained personnel will attend transfer operations at all times. The size of the day tank on the rig may vary, but it will be less than a 10,000-gallon capacity. All independent fuel and hazardous substance containers will be marked with the contents and the lessee or contractor name using paint or a permanent label.

An ODPCP for this project is in preparation. The approved plan will be kept on site at all times for guidance in controlling and cleaning up any accidental discharges of fuels, lubricants, or produced fluids. AEA will work closely with the ADEC, the well control contractor (Witt/O'Brien's), and the spill response contractor (Chadux) to ensure the ODPCP plan will include immediate response actions including receiving environments, spill cleanup mobilization

response times, and well control. Information related to immediate response actions, a receiving environment, spill cleanup mobilization response times, and well control can be found in the ODPCP plan.

As required by the Environmental Protection Agency, contractors associated with this project will maintain SPCC plans for drilling, fuel storage facilities, drilling operations, fuel storage facilities for the camps, and well testing tanks. Contractors needing to store fuel will have SPCC plans covering their specific fuel storage and transfer operations. Additional SPCC plan requirements will be handled in the ODPCP as appropriate.

#### E. Solid Waste Sites

Waste Management and Disposal of Drilling Wastes: Water-based Drilling waste (muds and cuttings) from this project will be trucked as soon as possible to an approved facility in Prudhoe Bay for disposal. Approximately 5,500 gallons per day (GPD) of non-hazardous Underground Injection Control (UIC) Class II fluids will require minimal temporary on-site storage (while the vacuum trucks are loading the waste) before disposal in Prudhoe Bay. Drilling waste may be processed on-site for reuse where possible. Drilling waste will be temporarily stored in heated tanks with secondary containment until removal from the project site to the Prudhoe Bay Unit (PBU) Grind and Inject (G&I) Facility at Drill Site 4 in the Eastern Operating Area of Prudhoe Bay for disposal. Containment will be a minimum of 110 percent of the largest tank. Temporary storage and disposal will comply with state and federal regulations and the North Slope Borough policies. A contingent temporary drilling waste storage area may be constructed onsite and may consist of wood timbers lined with an impermeable liner to drilling waste. Drilling waste will not be discharged into lakes, streams, rivers, or important wetlands. After the removal of drilling waste from the storage area, a visual site inspection will be performed to verify that all drilling waste has been removed. A final site inspection report including drilling waste volume and final disposition of waste will be submitted to ADEC within seven days of the site inspection as required by 18 AAC 60.430. All drilling waste will be disposed of prior to completion of winter operations. Used oil will be recycled or packaged in drums and hauled to Prudhoe Bay for shipment to an approved recycle facility.

Wastewater: The rig camp should generate less than 7,000 gallons (159 bbls) per day of domestic wastewater. Camp wastewater will be processed through the camp wastewater treatment system and stored in tanks until taken to the PBU G&I Class II facility for disposal. The majority of wastewater will be sent there for disposal. A small amount of wastewater will be Class I and will be sent to a facility at Prudhoe Bay Pad 3. Non-drilling waste management will comply with Federal, State, and local regulations to prevent attracting wildlife. Food waste that could attract wildlife will be stored in enclosed containers and back-hauled to an approved disposal center (such as PBU). The tertiary method of disposal as described in Mitigation Measures for the North Slope Foothills A.4.k (on-site non-frozen storage in animal proof containers) will be daily backhauled to Prudhoe Bay. This waste may be temporarily stored on-site depending on weather conditions. As a contingency, non-putrescible waste will be deposited in "super sacks" at the drill site and will be transported overland to an approved disposal facility. AEA may use an onsite incineration in accordance with 18 AAC 50. The ash will be hauled to the NSB SA-10 landfill. Solid, non-burnable waste will be deposited in dumpsters located at the site. These containers will be hauled to the NSB SA-10 landfill in Prudhoe Bay. Waste from operations will be reduced, reused, or recycled to the maximum extent practicable.

#### F. Water Supplies

Water requirements for the program are expected to be approximately 1.5 million gallons for drilling and 0.5 million gallons for camp operations. Water will be obtained from existing sources near the drill site under Temporary Water Use Authorizations from the DMLW Resources. Potable water for human consumption may also be obtained from service providers in Deadhorse.

#### G. Utilities

Utilities will not be designed or located on the Franklin Bluffs pad. As stated in the 'buildings' section of this Plan of Operation, AEA will operate its Icewine #1 drill program on diesel generators. The camp will be powered by a generator set with one stand-by generator set.

#### H. Material Sites

AEA will use rig mats underlain with heavy-mil liner as foundations for the rig and camp. Minor gravel blading and leveling operations may be conducted to facilitate the setting and functionality of such foundations. No Material Site operations are expected.

#### I. Roads

AEA plans to access the Icewine #1 drill location from the Dalton Highway. The well is located within an oil and gas lease issued by the State of Alaska and will be accessed by an existing gravel road from the Dalton Highway. Equipment and materials for drilling will be located on the Franklin Bluffs pad. Public access to, or use of, the lease area will not be restricted except within the immediate vicinity of drill rig, camp, and associated facilities. Areas of restricted access will be provided to the State, upon request, after mobilization. No facilities will be located so as to block access to or along navigable or public waters. AEA will obtain an Alaska Department of Transportation and Public Facilities (ADOT/PF) Northern Region Office driveway /approach road permit(s) if deemed necessary.

#### J. Airstrips

There is an existing, unnamed airstrip to the east of the Franklin Bluffs pad. AEA is not aware of the condition or use of this airstrip. However, this airstrip will not be utilized during this project. Access to this existing airstrip will not be restricted as a result of this project. New airstrips will not be constructed during this project.

#### K. All Other Facilities and Equipment

No other facilities and equipment will be used during this project.

#### L. Rehabilitation Plan

All debris will be hauled to an approved disposal site upon completion of drilling and testing. The well will be plugged or suspended after well test(s) completion in accordance with AOGCC regulations. The Franklin Bluffs site has Institutional Controls (ICs) overseen by the ADEC. The site was used as a construction camp during construction of TAPS. In 1975, approximately 30,000 gallons of diesel were released to the camp pad and some contamination migrated to nearby wetlands at the edge of the pad. Alyeska conducted initial spill response and cleanup including product recovery according to company procedures. In 1985, Alyeska's camp closeout was approved by DNR. Subsequently, multiple users have occupied the site since it was used as a construction camp. Multiple contaminants have remained from the 30,000 gallon diesel spill. Under this IC, no soil may be removed from this site. ADEC info regarding the ICs for the

#### Franklin Bluffs pad is available here:

http://dec.alaska.gov/Applications/SPAR/PublicMVC/CSP/SiteReport/14. This site maintains a Notice of Residual Contamination that is recorded on the ADEC database which documents residual contamination remaining on site above the most stringent ADEC cleanup levels. Contaminants of concern include: Gasoline Range, Organics Diesel Range, Organics Benzene, Toluene, Ethylbenzene, and Xylenes. Surface and groundwater monitoring was conducted by the ADEC from 1996 - 2000 at which time the ADEC determined that concentrations of the above were stable or declining.

The proposed level of infrastructure for this project is temporary. The drill rig and all associated facilities will be removed once the project is complete. The program is planned on an existing gravel pad, the Franklin Bluffs/White Hills staging area. The pad will remain in place and continue to be managed by DMLW for surface uses. The project is also utilizing existing access roads that will also remain after project completion.

Upon completion of drilling and evaluation operations, the well will be plugged or suspended in accordance with 20 AAC 25.105 or 20 AAC 25.110. Cleanup operations will be conducted after the drilling program to remove any remaining debris during demobilization activities. Any spills caused by AEA or its subcontractors discovered as part of site closure activities will be chipped or scraped to remove the contaminated material. This material will be transported to an appropriate facility for disposal. AEA will carefully monitor its spill prevention program knowing that the Franklin Bluffs pad is already contaminated. Tundra damage is not anticipated. AEA will notify DNR and NSB in accordance with lease advisories if any tundra damage is observed. If needed, AEA will further coordinate with DNR to develop a plan for restoration, rehabilitation, and monitoring. The plan will address the area, type, and extent of damage and will be developed in accordance with the Alaska Coastal Revegetation & Erosion Control Guide (developed by the State of Alaska Plant Materials Center), the Streambank Revegetation and Protection Guide (developed by the Alaska Department of Fish and Game), and other relevant guidance documents.

#### M. Operating Procedures Designed to Minimize Adverse Effects

Fish and Wildlife Habitats: AEA's activities include measures to minimize impacts on fish and wildlife. This includes mitigation measures outlined in the State of Alaska lease stipulations and adherence to State of Alaska and North Slope Borough (NSB) land management regulations and permit requirements. A wildlife interaction plan and a bear interaction plan (to include both grizzly and polar bear) will be distributed as requested to necessary approving agencies and AEA personnel. AEA selected the existing Franklin Bluffs gravel pad to minimize adverse effects on vegetation, habitat, wildlife, and cultural resources.

Historic and Archeological Sites: AEA has completed consultation and inventory of prehistoric, historic, and archeological sites on and around the Franklin Bluffs pad and access roads with the NSB cultural resources department, the State Historic Preservation Office, Alaska Heritage Resources Survey, and the National Register of Historic Places.

Public Use Areas: The greater Franklin Bluffs area is relatively flat tundra marked by occasional lakes and thaw ponds typical of the North Slope. The actual Franklin Bluffs gravel pad is a predisturbed site that has been in use since it was built in the 1970's. AEA has conducted baseline reconnaissance, including a desktop wetland delineation and LiDAR acquisition. The data collected has been utilized to minimize impacts to the surrounding area. The program is near existing oil and gas infrastructure and public interest in these activities is expected to be modest. Proposed operations will not occur in or near a subsistence hunting area (refer Figure 6). AEA attended a NSB Planning Commission meeting in June 2015. AEA states that it will be receptive and pro-active should there be any concerns with regards to the project.

Other Uses: A training program will be designed to inform each individual of the environmental, social, and cultural concerns that relate to their job functions. Training components may include a review of permit stipulations and requirements, cultural awareness, spill prevention and reporting, wildlife interaction, site specific safety, etc. All personnel will participate in a specific training program for bear safety and a briefing of the Bear Avoidance, Interaction, and Mitigation Plan. In addition, North Slope employees and contractors are required to complete an 8-hour training program provided by the North Slope Training Cooperative (NSTC). The Field Environmental Handbook, Alaska Safety Handbook, and a North Slope Visitor's Guide are used for the training.

In approving a Plan, DNR may require amendments necessary to protect the State's interest (11 AAC 83.158). The Division has determined that to protect the State's interest, it is necessary to incorporate into the Plan the North Slope Foothills Mitigation Measures. AEA 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 Foothills Mitigation Measures. All plan applicants must complete a mitigation measure analysis demonstrating that each mitigation measure is satisfied or inapplicable to its proposed Plan, or that the applicant is seeking an exception. The North Slope Foothills 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. AEA completed the mitigation measure analysis for the North Slope Foothills Areawide and one exception(s) was requested. AEA requests a mitigation measure exception to A4.e which states: vehicle refueling shall not occur within the annual floodplain, except as addressed and approved in the plan of operations. This measure does not apply to water-borne vessels. During agency review ADF&G commented on the mitigation measure exception that the Franklin Bluffs/White Hills staging area is not located within the within the floodplain of the Sagavanirktok River. The mitigation measure A4.e is satisfied and an exception is not required.

## N. Phased Evaluation

This Plan begins AEA's exploration of the lease described herein. The Plan addresses exploration activities for drilling one well, but based on the results of this exploration, the Division anticipates that AEA may submit additional Plans for additional exploration wells. Thus, in considering the exploration phase, the Division considered both the specific activities proposed under this Plan as well as typical additional exploration activities that AEA might propose for further exploring the lease.

The Division considered the potential impacts of exploration on public and State interests. In the oil and gas context, the public interest includes maximizing economic and physical recovery of oil and gas resources (AS 38.05.180(a)(1)). The State has an interest in protecting the public interest, and in encouraging assessment of oil and gas resources while minimizing the adverse impacts of exploration, development, production, and transportation activities (AS 38.05.180(a)(2)).

In considering potential impacts, the Division also considered the operating procedures AEA has designed to minimize adverse effects of the Plan activities. These operating procedures include complying with the mitigation measures attached to the leases. These measures come from the North Slope Foothills Areawide Best Interest Finding (BIF) to address potentially negative effects of oil and gas exploration on fish and wildlife species, habitats and their uses, on subsistence uses, and on local communities. AEA has provided a mitigation measure analysis which is required as part of their Plan of Operations submittal.

#### i. <u>Facilities impacts on the project area.</u>

All proposed facilities are temporary in nature and will take place on the existing Franklin Bluffs gravel pad. AEA has designed, sited, and proposes to operate the exploration drilling facilities in accordance with the North Slope Foothills mitigation measures. All activities are proposed to take place on the existing gravel pad and are intended to avoid and minimize impacts to wetlands. No new gravel placement is proposed for AEA's 2015 exploration program. The Dalton Highway will be used to transport supplies and equipment from Prudhoe Bay to the project area. Demobilization of the facilities is expected to occur in December 2015 in accordance with North Slope mitigation measure A.1.i. All temporary facilities and waste will be removed and the well will be plugged and abandoned or suspended, per AOGCC regulations.

#### Fuel and hazardous substances potential impacts on the project area

The exploratory drilling proposed under the Plan, as well as other exploratory drilling AEA might propose during the exploration phase, will result in drilling muds, cuttings, and produced water and pose some risk of a spill. Discharges of drilling muds, cuttings, and produced waters; oil spills; and accidental spills of fuel, lubricants, or chemicals can all have impacts to water, wildlife, and habitats during this exploration program. Impacts from exploration activities, from either disposal activities or a spill, could adversely affect water quality, but impacts are expected to be local and temporary because of dilution, settling, and other natural altering and regenerative processes.

#### Drilling Muds and Produced Water

Byproducts of drilling activities include muds and cuttings, produced water, and associated wastes. Produced water contains naturally occurring substances such as clay, sand, oil, water, and gas. Most drilling wastes are disposed of under ADEC's solid waste disposal program. Re-injection is the preferred method for disposal of drilling fluid. Disposal of drilling muds and cuttings requires permit approval. Most oil field wastes are considered non-hazardous and waste fluids are recycled, filtered, and treated before reinjection or disposal. Cuttings and waste fluids must be made non-hazardous before injection. Produced water is treated using heat, gravity settling, and gas flotation devices to remove hydrocarbons. After treatment, produced water is re-injected into either the oilbearing formation to maintain pressure and enhance recovery or into an approved disposal well. Cuttings disposal is done through grinding and injecting on-site, or cuttings are transported to an approved disposal site. Wastewater, including sanitary and domestic graywater, is also treated to meet effluent guidelines before discharge.

During exploration drilling, muds and cutting are stored on-site, in holding tanks, or in a temporary reserve pit and then hauled to an approved solid waste disposal site or re-

injected into the subsurface at an approved injection well. All production muds and cuttings on the North Slope are re-injected into a Class II injection well. All produced waters are re-injected either into the producing formation or into an injection well. The AOGCC oversees proper and safe handling and disposal of drilling wastes and oversees the underground operation of the Alaska oil industry on private and public lands and waters. The AOGCC administers the UIC Program for oil and gas wells, acts to prevent waste of oil and gas resources and ensure maximum recovery, and protects subsurface property rights. All disposal wells inject fluids deep beneath any drinking water aquifers. North Slope Foothills mitigation measure A.4.j states that the preferred method for disposal of muds and cuttings from oil and gas activities is by underground injection. AEA's Plan states that waste drilling muds and cuttings will be hauled to the PBU Grind and Inject Facility for processing and disposal. Solid drilling waste may be placed in open-top metal tanks or shale bins located next to the drilling mud processing units. Waste liquid drilling fluids will be stored in closed tanks. The drilling waste can be pumped out of the tanks/bins and hauled directly offsite for disposal, or temporarily stored onsite in shale bins until frozen prior to disposal. Drilling waste will be transported as it is generated to the extent practicable. After the removal of drilling waste from the storage area, a visual site inspection will be performed to verify that all drilling waste has been removed. A final site inspection report including drilling waste volume and final disposition of waste will be submitted to ADEC as required under 18 AAC 60.430. All drilling waste will be disposed of prior to completion of winter operations. All fluids from production testing will be passed through a test separator system to separate gases and stored in tanks until the testing is completed. After testing, the fluids will either be injected back into the formation from which it was produced, or hauled to North Slope oil and gas production facilities for processing and/or product recovery.

## Accidental Spills

Impacts resulting from accidental spills would depend on the type of product, the location, volume, season, and duration of the spill or leak, and the effectiveness of the cleanup response. Heavy equipment, such as trucks, tracked vehicles, and tank trucks, commonly use diesel fuel, gasoline, motor oil, hydraulic fluid, antifreeze, and other lubricants. Spills or leaks could result from accidents, during refueling, or from corrosion of lines. Fuel and hazardous substances must have secondary containment apparatuses. A secondary containment or surface liner must be placed under all container or vehicle fuel tank inlet and outlet points, and appropriate spill response equipment must be on hand during any transfer or handling of fuel or hazardous substances. AEA's Plan states that fuel will be stored in lined, bermed fuel storage areas or appropriate fuel storage areas that will hold a minimum of 110 percent (110%) of the maximum capacity of fuel storage. Fuel storage, handling, transfers, and spill reporting will be conducted in accordance with the requirements described in AEA's C-Plan (11-CP-5194), North Slope Environmental Field Handbook, and Alaska Safety Handbook. Fuel will be re-supplied to the site either from the existing North Slope oil and gas operations or from the existing operations on the North Slope.

## Oil Spills

The effects of an oil spill during the winter are limited due to the short season and temporary nature of the exploration program. There are no production activities, permanent facilities, or pipelines proposed. AEA has proposed temporary activities

during winter months, and the Division anticipates any future exploratory drilling would also take place during the winter when the risk from spills is lower.

Mitigation measures include development of oil spill contingency plans, and providing adequate spill response training.

North Slope Foothills mitigation measures require that sites be protected from leaking or dripping fuel and hazardous substances; secondary containment be placed under all container or vehicle fuel tank inlet and outlet points, hose connections, and hose ends during fuel or hazardous substance transfers; vehicles cannot be refueled within the annual floodplain; containers must be marked with the contents and lessee/contractor name; waste from operations be reduced, reused, or recycled to the maximum extent practicable; muds and cuttings should be disposed of by underground injection, where practicable; and that proper disposal of garbage and putrescible waste be utilized.

AEA's mitigation measure analysis states that fuel and hazardous substances will be stored at least 100 feet from any water body and no known surface drinking water sources are in the vicinity of proposed project operations (A.4.b); drip pans or liners will be placed under parked vehicles or equipment to capture fluids (A.4.c); surface liners will be used under all potential spill points, AEA will verify that adequate sorbents are on hand during fuel transfers, and ensure that personnel are property trained and understand proper procedures for handling flammable and combustible fluids (A.4.d); all containers with fuel or hazardous substances will be labeled with the contents and lessee's/contractor's name (A.4.f); and solid burnable waste may be incinerated in location. All wastes generated as part of operations will be hauled offsite for disposal at an approved facility (A.4.h).

## ii. Habitat, Fish, Wildlife and Subsistence

Any exploration activity can impact habitat, fish, and wildlife. The North Slope Foothills mitigation measures are designed to minimize these impacts. The Plan activities will take place over a limited time period and involve gravel roads and temporary facilities. The Division anticipates impacts to habitat, fish, and wildlife will also be limited and temporary. The Division also anticipates that any future Plans for the exploration phase will involve similarly limited and temporary activities and impacts.

## <u>Fish</u>

The Sagavanirktok River is an anadramous stream, supporting the spawning and overwintering of several species of fish that then migrate to nearshore coastal waters to feed in the summer. Migration patterns vary by species and within species by life stage. Potential effects of exploration activities include degradation of stream banks and erosion; reduction of or damage to overwintering areas; impediments to migration; and fish kills due to oil spills. A potential habitat impact at the exploration phase is erosion. Erosion results in siltation and sedimentation, which in turn may result in a reduced or altered stream flow that may affect overwintering habitat availability and the ability of fish to migrate upstream. Protecting the integrity of stream bank vegetation and minimizing erosion are important elements in preserving fish habitat. Streambeds could be affected if stream banks are altered, such as in cases of damage from equipment crossings.

Withdrawal of water from lakes and ponds could affect fish overwintering habitat by entraining juvenile fish, lowering water levels, and increasing disturbance. Removal of water from lakes where fish overwinter may affect the viability of overwintering fish, and longer-term effects of lake drawdown may impede the ability of fish to return to the lake in subsequent years. Removal of snow from lakes may increase the freeze depth of the ice, kill overwintering and resident fish, and adversely affect the ability of fish to utilize the lake in future years.

North Slope Foothills mitigation measure A.2.b requires that removal of water from fishbearing rivers, streams, and natural lakes have prior written approval by DMLW and ADF&G. Water intake pipes used to remove water from fish-bearing waterbodies must be surrounded by a screened enclosure to prevent fish entrainment and impingement, with screen mesh size no greater than 1 mm (0.04 inches), unless another size is approved by ADF&G. The maximum water velocity at the surface of the screen enclosure may be no greater than 0.1 foot per second, unless an alternative has been approved by ADF&G.

DNR DMLW Water Section issued TWUA for water withdrawal of approximately 1.5 million gallons for drilling and 0.5 million gallons for camp operations to support the AEA's exploration drilling program. Before a permit to appropriate water is issued, DMLW considers local demand and may require applicants to conduct aquifer yield studies. Generally, water table declines associated with the upper unconfined aquifer can be best mitigated by industrial users tapping confined (lower) layers or searching for alternate water sources.

## Wildlife

Exploration-related disturbance of caribou is expected to have minor impacts on caribou, particularly large groups, with animals being briefly displaced from feeding and resting areas when vehicles pass nearby. Vehicle traffic associated with transportation corridors, such as the Dalton highway, has the potential to affect habitat use. Acute disturbance effects may in combination result in a cumulative effect on habitat availability for those individuals with fidelity to the Kuparuk River calving area, but may have little or no effect on the Central Arctic herd population. It is expected these disturbances would be short term.

Moose occur all across the North Slope with the largest concentration along the Colville River and its tributaries. Moose generally remain in the foothills and along river corridors. AEA's proposed drilling program is expected to have little effect on the North Slope moose population.

The temporary displacement of some polar bears from preferred habitats may result from routine exploration activities such as the proposed Plan activities and activities AEA proposes throughout the exploration phase. Females in dens are at risk for disturbance from any vehicular traffic or noise. Due to its proximity to existing transportation infrastructure, the Winter Exploration Plan is unlikely to significantly increase temporary displacement and disturbance above the level caused by existing transportation activities.

Polar bears continually search for food. Once bears find a camp or industrial site, they will often enter to explore and search for food. If a bear receives a food reward, it is more likely to return. Polar bears often investigate not only things that smell or act like food, but also novel sights or odors. Subadult bears are more likely to be food-stressed and attracted to human activity more commonly than well-fed bears. Subadults are also less likely to leave if a potential food source is present. Attractants include kitchen odors, deliberate feeding, accessible garbage, sewage lagoons, carcasses, industrial materials, and alteration of habitat.

Brown bears can be found throughout the Arctic region in varying densities. The lowest densities occur along the coastal plain; brown bears are at the northern limits of their range in the Arctic. The availability of food is limited and their reproductive potential is low. Brown bears may be subject to disturbance from oil and gas activity. During exploration, human activity may attract foraging bears, especially to refuse disposal areas. Omnivores are attracted to food and food odors associated with human activity, and may become conditioned to non-natural food sources. This may pose a threat to human safety and the potential need to shoot "problem" animals. Bears can also be displaced by human land use activities.

There are several regulations imposed by state, federal, and local agencies that are implemented to avoid, minimize, and mitigate these potential effects to bears. In addition to complying with the Endangered Species Act and the Marine Mammal Protection Act, AEA must comply with mitigation measures to minimize effects of exploration activities on bears.

#### **Subsistence**

Traditional subsistence uses in the area include: brown bear, caribou, musk ox, and moose harvesting; hunting and trapping of furbearers, such as wolf, fox, weasel, wolverine, and squirrel; hunting migratory waterfowl and collecting their eggs; fishing for whitefish, char, salmon, smelt, grayling, trout, and burbot; collecting berries, edible plants, and wood.

Potential exploration activities that could have effects on subsistence uses in the area include discharges from well drilling, and ongoing disturbances from operation activities such as vehicle traffic. Noise, traffic disturbance, and oil spills generally produce short-term impacts on subsistence species.

The North Slope Foothills Areawide BIF contains several mitigation measures intended to reduce conflicts with subsistence, commercial, and sport harvest activities. Prior to submitting a Plan to the Division, the lessee must consult with affected subsistence communities and the NSB to discuss reasonably foreseeable effects on subsistence during the proposed operations, and methods of proposed operations and safeguards or mitigation measures that can be implemented to prevent unreasonable conflicts. The lessee must make reasonable efforts to assure that the proposed exploration activities are compatible with subsistence hunting and fishing, and will not result in unreasonable interference with subsistence harvests. The Division may implement restrictions, as appropriate, to reduce potential conflicts. AEA's mitigation measure analysis states that AEA understands the subsistence interests of local residents. AEA has conducted a pre-application meeting and is scheduled for anther with the NSB prior to its proposed activities under the Icewine #1 project. AEA will need to continue complying with the mitigation measures throughout the exploration phase, and the Division anticipates that any future plans of operations for exploration will include similar measures to address subsistence concerns.

#### iii. <u>Historic or Archeological sites</u>

While exploring, AEA could encounter prehistoric, historic, or archaeological sites. AS 41.35.200 addresses unlawful acts concerning cultural and historical resources. In addition, all field-based response workers are required to adhere to historic properties protection policies that reinforce that it is unlawful to collect or disturb, remove, or destroy any historic property or suspected historic property and to immediately report any historic property that they see or encounter.

Under North Slope Borough municipal code (NSBMC), proposed exploration shall not impact any historic, prehistoric, or archaeological resource before the assessment of that resource by a professional archaeologist (NSBMC 19.50.030(F)). NSBMC 19.70.050(F) says, "Development shall not significantly interfere with traditional activities at cultural or historic sites identified in the Coastal Management Program." These provisions give the NSB authority to protect cultural and historic resources and current subsistence uses of these sites.

In addition, North Slope mitigation measures require the lessee to conduct an inventory of prehistoric, historic, and archaeological sites within the area affected by an activity. The inventory must include consideration of literature provided by the NSB, nearby communities, Native organizations, and local residents; documentation of oral history regarding prehistoric and historic uses of such sites; evidence of consultation with the Alaska Heritage Resources Survey and the National Register of Historic Places; and site surveys. The inventory must also include a detailed analysis of the effects that might result from the activity. A cultural resources survey and inventory was conducted in the project area to identify any prehistoric, historic, or archaeological sites. AEA has obtained cultural clearance from the State of Alaska, State Historic Preservation Office North Slope Borough cultural resources department on potential historical, and archaeological resources. Because of the history and long-term use of the Franklin Bluffs pad, no sites are anticipated that would impact cultural, historical, or archaeological resources.

## V. CONSIDERATION OF LEASE PLAN OF OPERATIONS REQUIREMENTS UNDER 11 AAC 83.158(c-d) and 11 AAC 83.160

A. Full Payment of Damages to the Surface Owner 11 AAC 83.158(c) This project does not occur on non-State surface lands; therefore this regulation does not apply.

B. Plan Sufficiency 11 AAC 83.158(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;
- (4) a description of operating procedures to prevent or minimize adverse effects on natural resources and concurrent uses of the area (11 AAC 83.158(d)).

The information in section IV. Proposed Operations, above, and additional information contained in AEA's proposed Plan satisfy the requirements for a plan under 11 AAC 83.158(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 83.160

The State owns all the surface land the proposed Plan will be located on. The State owns all the mineral estate the proposed Plan will be producing from. For the State, a lessee provides for payment of damages by posting a bond, and remains liable for full damages under the lease. AEA has an Oil and Gas Lease Bond in the amount of \$100,000 and continuing liability under the lease.

#### VII. CONSULTATION WITH OTHER GOVERNMENT ENTITIES

In reviewing the proposed Plan, the Division considered the fact that AEA 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 reviewing the approvals required by Agencies, as they relate to this decision, the Division provided an Agency review and comment opportunity for the activities considered for authorization under this decision. The following government entities were notified on 6/24/2015 for comment on the Plan: U.S. Army Corps of Engineers; NSB; ADF&G; ADEC; and DNR: State Pipeline Coordinator's Office (SPCO), DMLW, Office of History and Archaeology (OHA), Office of Project Management and Permitting (OPMP), and the Division of Oil and Gas. The comment deadline was 4:30 pm Alaska time on 7/8/2015. No extension was requested. Comments were received and the Division, Applicant, and commenting agency(ies) reconciled the comments without modifying the Plan ; Agency comment(s) and Applicant's response(s) are summarized in Appendix B. The Plan was then publicly noticed.

## VIII. PUBLIC NOTICE

Public notice of the Plan and opportunity to comment, per AS 38.05.035(e)(1)(c)(ii), was published in the Alaska Dispatch News and Arctic Sounder on 7/20/2015 with a deadline for comments of 8/20/2015 at 4:30 pm Alaska time. Additionally, a copy of the notice was posted on DNR's web site, the State of Alaska online public notice website, and faxes of the public notice were sent to the Barrow, Nuiqsut, and Deadhorse post office(s). No public comments were received by the Division.

## IX. 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:

- 1. 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.
- 2. 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.
- 3. 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.
- 4. The Commissioner of the DNR may require that an authorized representative be on-site during any operations conducted under this approval. This stipulation is required to ensure that the Divisions of Oil and Gas and Mining, Land and Water meet their statutory responsibilities for monitoring activities taking place on state-owned lands.
- 5. 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 <u>and map(s)</u> 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 lines, buildings, roads, utilities, airstrips, and all other facilities and equipment installed.
- b. Upon completion of operations, the applicant will submit a completion report which will include 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.
- 6. Notification. The applicant shall notify the DNR of all spills that must be reported under 18 AAC 75.300 under timelines of 18 AAC 75.300. 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 ADEC oil spill report number is (800) 478-9300. DNR and ADEC shall be supplied with all follow-up incident reports.
- 7. A certified As-Built survey of all improvements shall be provided within one year of placement of the improvement(s). This As-Built must be submitted in both electronic and physical format.

To protect the State's interest, the Division finds that it is necessary to amend the Plan to incorporate the following Project Specific Stipulations:

- 1. AEA may restrict site access to the portion of the Franklin Bluffs pad integral for safety and operations as depicted in the AEA pad area figure.
- 2. AEA will return to the Franklin Bluffs pad in the spring of 2016 to insure the pad is cleaned of any debris and the surrounding area is returned in good condition.

## X. FINDINGS AND DECISION

Having considered the specific activities proposed, the best interest finding and associated supplements for the lease sale area within which the project is located, and the foregoing discussion 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, a rehabilitation plan, and a description of operating procedures 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 that it is necessary to amend the Plan to incorporate the mitigation measures set forth in the North Slope Foothills 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 are regulations with which AEA is expected 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 the advancement of the exploration phase 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 is in the State's best interest.
- 8. 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 and entry into the exploration phase.

Sincerely,

Kim Kruse

Permitting Manager Division of Oil and Gas

9/16/2015

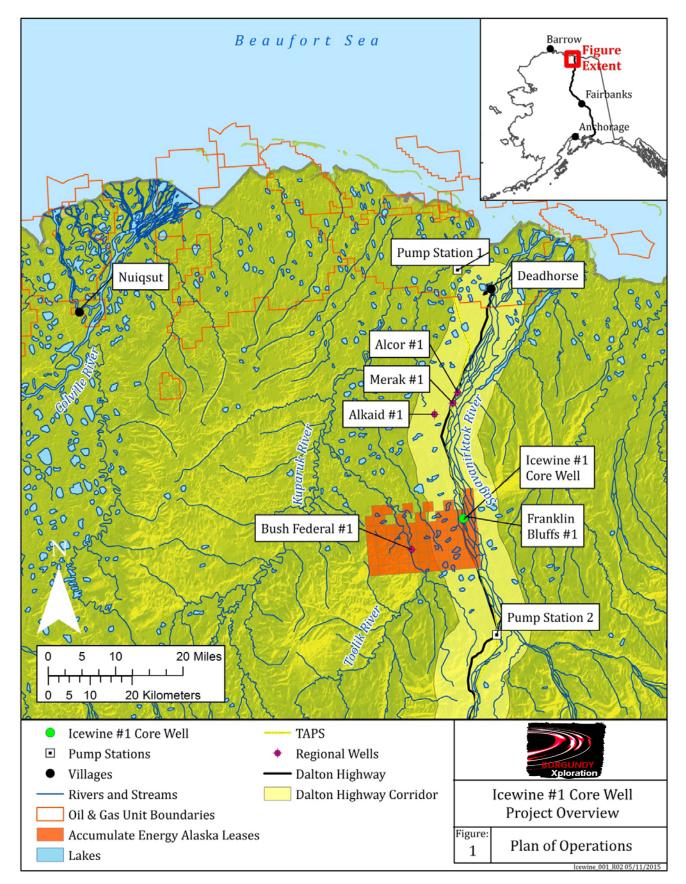
## Appeal

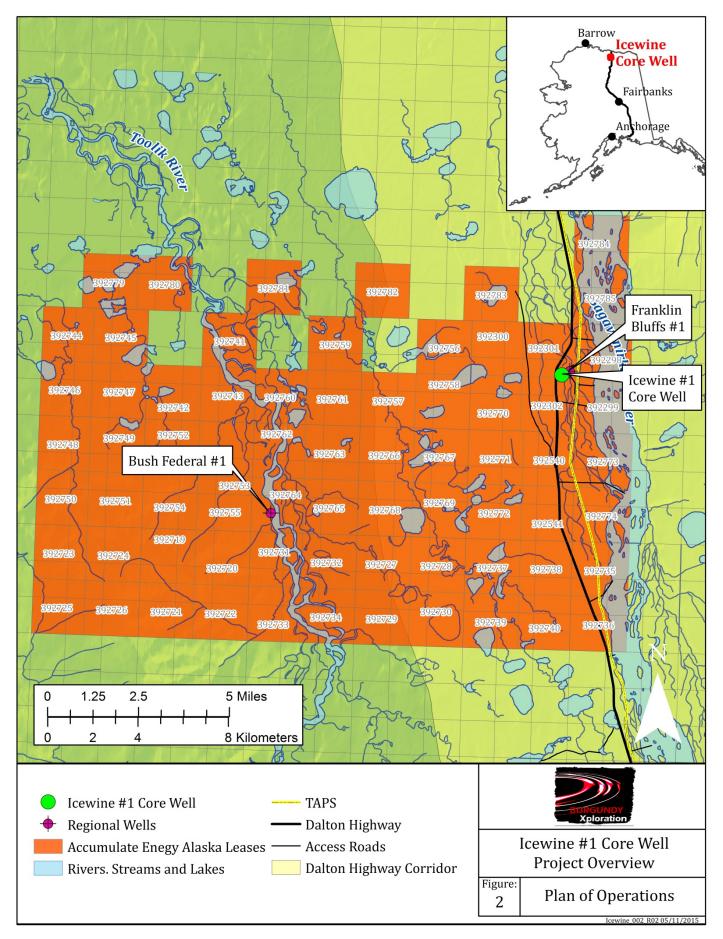
An eligible person affected by this decision may appeal it, in accordance with 11 AAC 02. Any appeal must be received within 20 calendar days after the date of issuance of this decision, as defined in 11 AAC 02.040(c) and (d), and may be mailed or delivered to the Commissioner, Department of Natural 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.

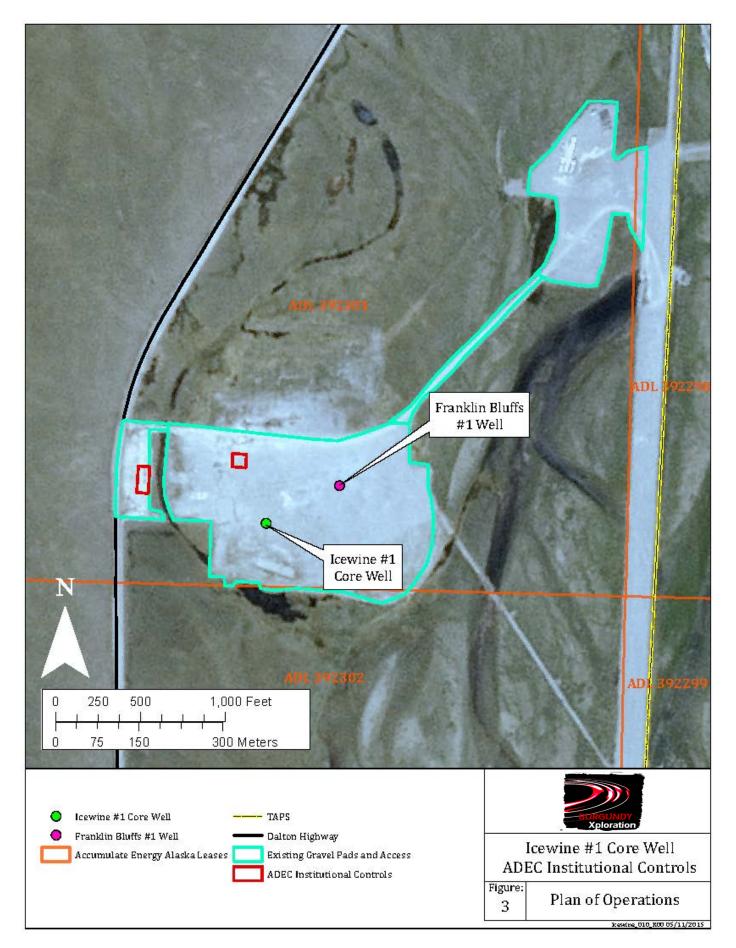
Attachments:

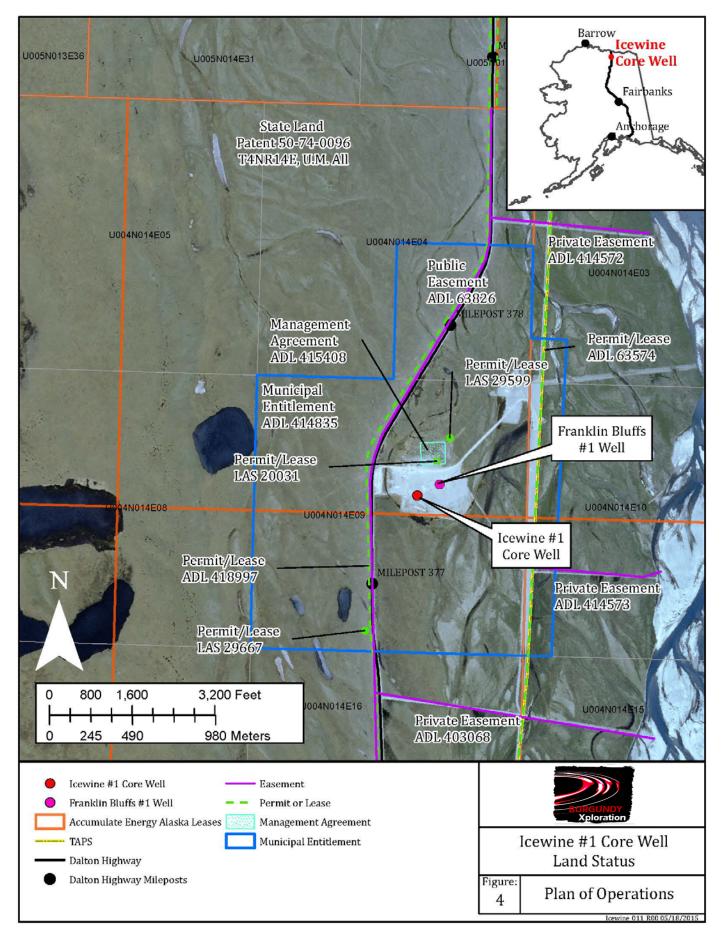
Appendix A: Maps and Figures 1-6 Appendix B: Agency and Public Comments Appendix C: Other ecc: DOG: Marta Mueller, Allen Eddy, Kim Kruse, Nathaniel Emery, Paul Blanche, Conor Williamson, Jeanne Frazier, Jodi Delgado-Plikat DMLW: Alexander Wait, Jeanne Proulx, Melissa Head, Matthew Willison, Brian Jackson, Henry Brooks, ADF&G: Jack Winters, Marla Carter ADEC: Sharon Morgan, Fathima Siddeek, Gerry Brown, OPMP: N/A North Slope Borough: Thomas Brower III, Maria Esparza, John Adams, Gordon Brower, Bart Ahsogeak, Waska Williams Other: Willow Hetrick, Fairweather, DNR Parks, NOAA, USACOE

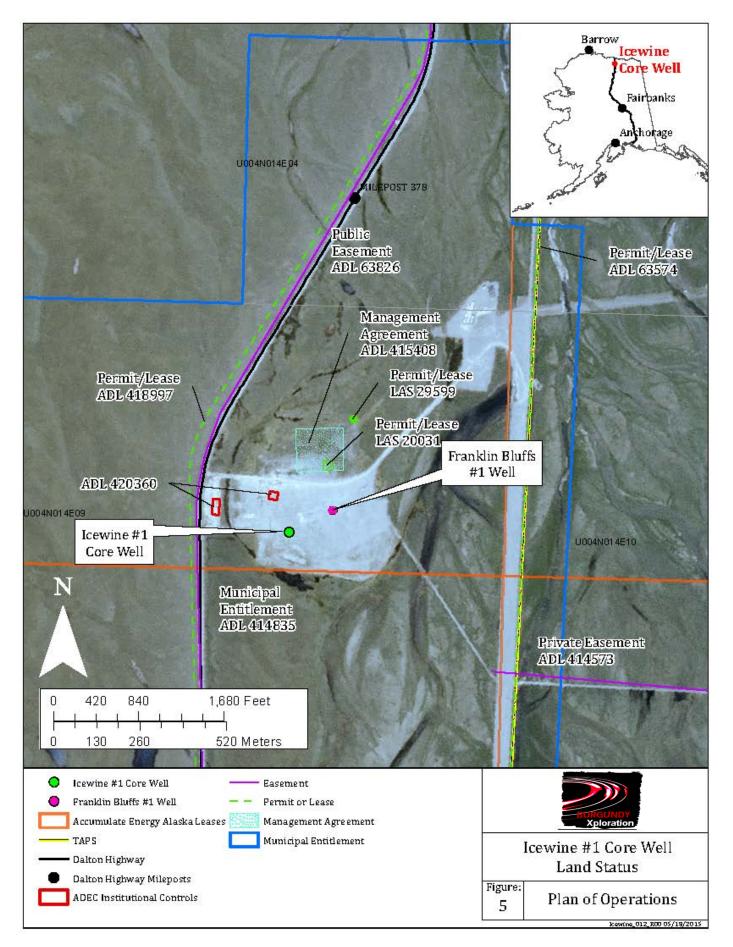
#### **APPENDIX A: MAPS**

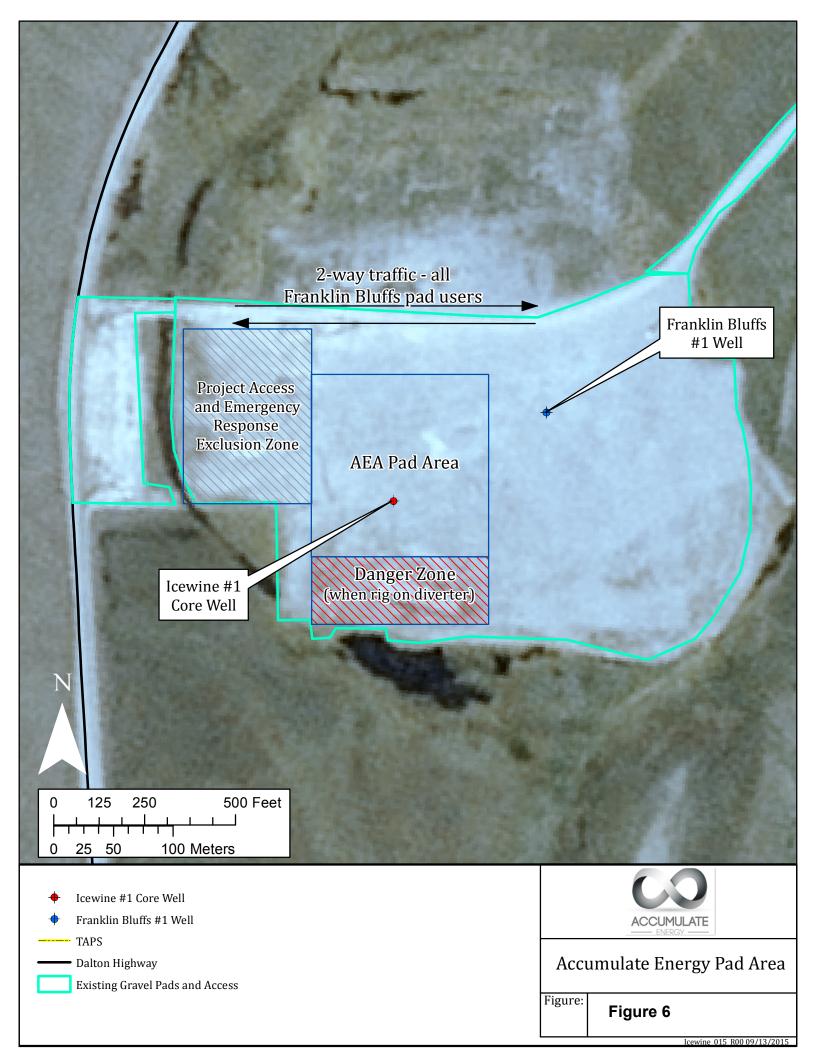












## **Appendix B: Agency and Public Comments**

## Alaska DEC, Division of Water, July 1, 2015

"Thank you for the opportunity to comment on the Plan of Operations (POO) for the Icewine #1 Exploration Well, submitted by Burgundy Xploration (BEX). Department of Environmental Conservation (DEC or Department), Wastewater Discharge Authorization Program (WDAP) has reviewed the POO and would like to provide information regarding Alaska Pollution Discharge Elimination System (APDES) permits that may be applicable to the project.

The APDES general permit (GP) AKG331000 – Facilities Related to Oil and Gas Extraction (North Slope GP) authorizes certain discharges within the coverage area that may pertain to proposed activities in the POO. This comment primarily concerns the discharges of rain and snow melt from Secondary Containment (Discharge 008), as the applicant is expected to obtain authorization and monitor discharges of accumulated rain or snowmelt water from secondary containment areas. Other discharges the applicant should evaluate for coverage under the North Slope GP include, but may not be limited to, Gravel Pit Dewatering (Discharge 003), Construction Dewatering (Discharge 004), Stormwater (006), and Mobile Spill Response containment areas (Discharge 007). Certain gravel mine sites that have not been rehabilitated per Alaska Department of Fish and Game require coverage under AKG331000 when dewatered for gravel extraction or for use in dust suppression on roads and pads or ice road construction.

Other APDES permits the applicant should be aware of include General Permit AKG572000 (domestic wastewater disposals). AKG572000 should be considered in the event that the applicant intends to dispose of domestic wastewater using a method other than UIC Class I/II mentioned in the POO. Last, Alaska Regulations in 18 AAC 72 include requirements for Department Plan Review and Approval of Wastewater collection, holding, and treatment systems.

If you or the applicant would like to discuss these comments, please contact me at 269-4720 or Jamie.Grant@alaska.gov. Alternatively Section Manager Gerry Brown can be reached at 269-4874 or Gerry.Brown@alaska.gov."

## **Division Response:**

Comments noted and forwarded to Applicant on July 6, 2015.

## Applicant Response, July 7, 2015:

"Thanks for forwarding the comments from ADEC. I will be in touch with Jamie."

## Alaska DFG, Division of Habitat, July 7, 2015

"The ADF&G has reviewed the lease plan of operations submitted by Burgundy Xploration (Accumulate Energy Alaska) for its Icewine #1 exploration well. The ADF&G has no objection to the proposed exploration well located on the Franklin Bluffs Pad. Burgandy Xploration has requested a waiver of Mitigation Measure A.4.e, regarding vehicle refueling in annual floodplains of rivers. The ADF&G does not believe this waiver is necessary, given that the entire project will be on an existing gravel pad with continual road access where vehicles can be easily refueled, and if necessary, where spills can be easily contained and cleaned up.

The ADF&G also requests the applicant provide the bear interaction plan for the agencies to review."

## **Division Response:**

Comment noted.

## Alaska DNR, Division of Mining, Land and Water, July 8, 2015

"The DNR/DMLW/Northern Regional Office has reviewed the application for a lease plan of operations and associated mitigation measures for the proposed Icewine #1 exploration well submitted by Burgundy Xploration. We do not support the exploration project as proposed and submit the following comments for consideration:

Franklin Bluffs is a multiple use area. The Franklin Bluffs pads are strategically suited for use by the public, oil and gas industry, researchers, and the AK Department of Transportation and Public Facilities (DOT/PF). Use of the pads occurs year-round. There are frequent temporary land use permits issued for various areas on the main pad and the satellite pad to accommodate DOT/PF construction projects, storage activities, camp operations for remediation and other projects, equipment storage and staging for ice and snow road construction activities, and occasional research activities. An active drill site at the proposed location is very visible and may make site control more difficult during operations. Additionally, it will restrict public access in an area that is frequented by the general public. As discussed with the applicant early on in the planning process, the drill site would be better suited to the southeast corner of the main pad or on the satellite pad that is currently gated by Alyeska Pipeline Service Company (APSC).

There are pending long-term interests at Franklin Bluffs that must be considered. Franklin Bluffs pads, airstrip, associated roads, and surrounding tundra are currently proposed for use by the DOT/PF as a maintenance station and future airport under a pending Interagency Land Management Agreement (ILMA) application (ADL 415408) with the DNR/DMLW. The DOT/PF is in need of a new maintenance camp to provide better maintenance response along the Dalton Hwy. The need for this was made very evident during the Sagavanirktok River flooding events during the 2015 spring break up. Additional information regarding the maintenance needs is provided in an updated application excerpt from 2010 (attached). The Plan of Operations (POO) submitted by BEX does recognize the interest from DOT/PF however the area requested by DOT/PF is incorrect. An updated map of the Franklin Bluffs area requested by DOT/PF is attached. The DNR/DMLW reviewed the application from DOT/PF and found that the legal description for ADL 415408 within our land records is incorrect. Presumably, the map produced by BEX for the POO is incorrect due to this oversight. We are in the process of having this corrected. The area is also selected by the North Slope Borough (NSB) as part of their municipal entitlement selection (ADL 414835). BEX has expressed the possibility of leaving the Icewine #1 exploration well suspended in place in accordance with AOGCC regulations. A long-term well site at Franklin Bluffs pad is not compatible with the current uses and pending applications.

The DNR/DMLW with support from the DNR/Division of Oil and Gas (DNR/DOG) has initiated a comprehensive management planning process for the North Slope that includes the Franklin Bluffs area. It is the intention of DNR/DMLW to use the North Slope Management Plan as the vehicle to adjudicate both the DOT/PF ILMA application and the NSB municipal entitlement application. The planning process is within the scoping phase and is not scheduled to be completed until 2016.

The DNR/DMLW/Northern Regional Office is not supportive of an exploration drilling program from Franklin Bluffs pad as proposed. Should the well be suspended for later production, it is not feasible to operate an active drill site alongside the other uses, authorizations, and public use of the area. Should a well be drilled on Franklin Bluffs pad, it should be plugged and abandoned and be located as far from the Dalton Hwy and local use as possible (southeast corner); Franklin Bluffs should not be a long term drill site. The DNR/DMLW/NRO could support a camp operation at Franklin Bluffs for the exploration drilling program if the actual well drilling was conducted on ice infrastructure from a location that will not interfere with uses at Franklin Bluffs or create a long-term interest in the area from BEX.

We look forward to discussing this project further. Thank you for the opportunity to comment."

## **Division Response:**

Applicant was included in the DMLW response but further clarification was requested on July 13, 2015. A coordination meeting was held between the Division and DMLW on July 14, 2015 where operations and project timelines were discussed in relation to existing and pending authorizations on the pad. The email text below was sent to DMLW and the NSB after the coordination meeting:

"The Division of Oil and Gas is proceeding to the Public Notice portion of this review with the Plan as-written. We will be adding a project-specific stipulation regarding the plugging and abandonment or suspension of the well to avoid potential conflict with longer term interests that have been identified with the Franklin Bluffs Pad. The current Plan of Operations would allow for the well to be suspended pending evaluation of the drilling results and deferring plugging and abandonment until after a formal testing program is approved and conducted."

## Applicant Response, July 13, 2015:

"Icewine #1 needs to stay where it is. Rig availability will not allow a winter program which would kill the program. The status of the well after this season depends on drilling and formation evaluation results. As a stratigraphic core-hole the most likely outcome is that the well will be plugged and abandoned immediately, but there is always the possibility that unexpected results could require a well test. In that case P&A work would be deferred until a formal well test program could be organized in 2016. However, since Icewine #1 is not designed to be a production well, it ultimately will be plugged and abandoned regardless of what testing might reveal."

## Alaska DNR, Division of Mining, Land and Water, July 20, 2015

"Recent discussions with the Division of Oil and Gas (DOG) and Burgundy Xploration (BEX) have indicated that there is no intention of future production wells at Franklin Bluffs Pad. It is our understanding that the DOG Plan of Operations Approval will specifically state that long-term production at Franklin Bluffs will not be approved. The Plan of Operations Approval will

also stipulate that should a long term interest in Franklin Bluffs Pad be approved as a result of the North Slope Management Plan process, all surface use by BEX (Accumulate) will cease and be removed from the site within a specified timeframe acceptable to the Department. Further, BEX (Accumulate) operations must be consolidated to the greatest extent possible while operating at Franklin Bluffs pad to accommodate other users and the public. With these stipulations included, we find the current plan submitted by BEX (Accumulate) to be acceptable."

#### **Division Response:**

A coordination meeting was held between the Division and Melissa Head on September 2, 2015. The concern over long-term use of the site by the Applicant will be alleviated through our project-specific focus approving this Plan for exploration work and a comprehensive accounting of third party interests in the site. Secondly, if the pad is transferred from DMLW management, the new operator will evaluate all existing interests in the site and move forward accordingly. Finally, DMLW's request for project consolidation is shared by all operators and an agreement was confirmed via email between the Applicant and the other primary user of the main pad via email exchange on September 13, 2015. No stipulations will be included in relation to these points due to the mutual understanding of the timing and management by both DNR agencies.