# Frontier Stampede Template
# DNR technical team discussion document

February 16, 2012

## Overview

- **This discussion document does not constitute an endorsement of this legislation by DNR in any way**
- DNR understands that the purpose of the proposed legislation is to define a program to promote conventional oil and gas exploration on state and native lands in frontier basins where there is possibility for local or regional use;
- DNR also understands that a secondary purpose would be to secure geologic and geophysical data for state use and public release;
- If the Legislature chooses to implement such a program, DNR suggests the following be considered as minimum provisions and scope:

## Provisions and Scope:

- Any potential tax credits should be Implemented under AS 43.55.025 – the current exploration licensing statutes should not be altered;
- A maximum of 75% tax credit for either geophysical exploration or exploration drilling up to a maximum dollar limit per project (a recon 2D seismic program can cost $10 million or more per geophysical project, a remote site exploration well can cost $20 to $30 million per well depending on location and depth);
- Any credits should be applicable only to conventional oil and/or gas exploration on state lands, state waters, and private lands, south of 68 degrees North latitude, and not encompassed by the Cook Inlet areawide lease sale boundary;
- The credits should not be applicable to federal lands or waters;
- All credits should be subject to pre-qualification by the Commissioner of the Department of Natural Resources based on a finding that supporting the proposed exploration project is in the public interest;
- All credits should be restricted to proven, experienced, safe operators;
- DNR recommends defining geographic areas that will be eligible for this program (with township-range/legal description boundaries). Further, DNR recommends the Legislature set limits in this legislation on the number of geophysical projects and wells allowed in each area. A preliminary map (Attachment) accompanies this document, showing the ten areas of the state DNR suggests could be made eligible for credits.
- The areas indicated encompass sedimentary basins with sufficient depth and rock type to maintain some potential for conventional gas, and possibly oil. There is a wide range of potential, with the smallest and shallowest basins generally having the least potential.

- Projects within the boundaries defined for the following areas could be considered eligible for geophysical and/or drilling credits:
    - Nenana basin
    - Northern Alaska Peninsula
    - Southern Alaska Peninsula
    - Yukon Flats basin
    - Susitna basin
    - Kotzebue basin
    - Copper River basin
- Projects within the boundaries defined for the following areas should initially be eligible for geophysical credits only:
    - Y-K delta
    - Holitna basin
    - Minchumina basin
- Exploration expenditures for which the credit is claimed must be for work conducted in a defined time period.

## Geophysical Exploration:

- DNR recommends a maximum 75% credit for 2-D or 3-D seismic or other geophysical exploration with a maximum cap  per acquisition project (where "project" means all data collected within the boundaries of an eligible area in any given crew-season).

**Recommended Pre-qualification requirements for geophysical exploration:**

- The Commissioner of DNR must make an affirmative determination that supporting the proposed geophysical exploration project is in the public interest based on a presentation from operator and seismic contractor to DNR-DOG;
- Presentation must detail the location, exploration rationale, size, acquisition plan, processing plan, and anticipated cost schedule;
- Contractor must have a proven history of acquisition/processing in remote road-less areas;
- The data licensee must agree to data submission requirements as per AS 43.55.025(f)(2);
- If the exploration is conducted on privately owned land, the person claiming a tax credit under this program must secure and demonstrate pre-approval of the private landowner (including native corporations) for the full public release of all geophysical data collected after 3 years from the completion date + 30 day public notice, notwithstanding provisions under AS 43.55.025(f)(2)(C)(i – ii) to the contrary.

**Post-acquisition requirements for seismic or other geophysical project:**

- Final approval of the tax credit will be subject to the Commissioner of DNR determining that the operator fulfilled the data submission requirements.

## Exploration Drilling:

- DNR recommends a maximum 75% credit for drilling costs, with a maximum limit per well (costs could include mob-demob, drilling completion, testing; costs should exclude rig modification);
- Drilling costs will be scrutinized to industry standards for remote operations;
- Cost over-runs will be responsibility of operator;
- Recommend 50% payback provision if well results in discovery that goes into sustained production (as per jack-up credit 025(l));

**Pre-qualification requirements for a well:**

- The Commissioner of DNR must make an affirmative determination that supporting the proposed exploration drilling project is in the public interest based on a presentation from operator to DNR-DOG;
- The operator should have a proven history of safe oil & gas drilling operations;
- Operator must demonstrate a seismically mapped prospect, providing sufficient interpreted seismic data and mapping to identify the intended trap, target depth or depth range, and planned total drilling depth;
- show that the prospect falls within a sedimentary basin capable of hosting a functioning petroleum system; identify anticipated source, reservoir, and seal intervals and their expected characteristics;
- must agree to drill either to economic basement, or at least 12,000 feet true vertical depth if basement is not penetrated;
- any credits must only be for the first well to penetrate the proposed trap;
- must agree to conduct a full evaluation of the entire wellbore below surface casing according to best practices for oil and gas exploration (**see data collection program below**);
- must agree to penetrate and thoroughly evaluate the hydrocarbon potential of the pre-approved prospect;
- must agree to submit all geological, geophysical, and engineering data collected to the Division of Oil and Gas for public release according to the requirements of AS 43.55.025(f)(2);
- if the exploration is conducted on privately owned land, the person claiming a tax credit under this program must secure and demonstrate pre-approval of the private landowner (including native corporations) for the full public release of all well and geophysical data collected, notwithstanding provisions under AS 43.55.025(f)(2)(C)(i – ii) to the contrary.
- Must include total estimated cost of project including cost of infrastructure to transport product to intended market and funding mechanism for development

**Post-drill requirements for a well:**

- Final post-drill approval of the tax credit will be subject to the Commissioner of DNR determining that the well penetrated and evaluated the pre-approved frontier basin prospect , and that the operator has fulfilled the data submission requirements.

**Well Data Collection Program:**

- The operator must;
- collect a standard full suite of open hole logs of the entire wellbore below surface casing including minimum of mudlog, gamma ray, spontaneous potential, resistivity, sonic, bulk density, and neutron porosity;
- make a good faith effort to collect representative full diameter core or rotary sidewall core for reservoir quality analysis,
- make a good faith effort to collect fluid samples and conduct analyses of total dissolved solids for use in calculating hydrocarbon saturation;
- if logs or samples identify potentially producible hydrocarbons, well completion and flow testing for illustrative purposes only If the well is completed and tested, data collection and post-drill submission must include all test data, test interpretations, and all cased hole logs.

## Attachment:

Preliminary map (DGGS-DOG) for illustrative purposes only showing areas which the legislature could deem eligible for tax credit project support, provided all pre-qualification criteria are met. Proposed eligible areas are not yet formally defined, adopted, or legally described.

## Questions/Concerns:

- How will the state limit financial exposure? One possibility would be to consider limiting to no more than one seismic and 1 well in each defined eligible area with a financial maximum
- What expenses are included? Recommend ensuring that provisions of 15 AAC 55.360 apply to this program.
- Some basins are very remote, and far from infrastructure or population. The minimum of 25% "skin in the game" will potentially limit any efforts where economic feasibility is non-existent.