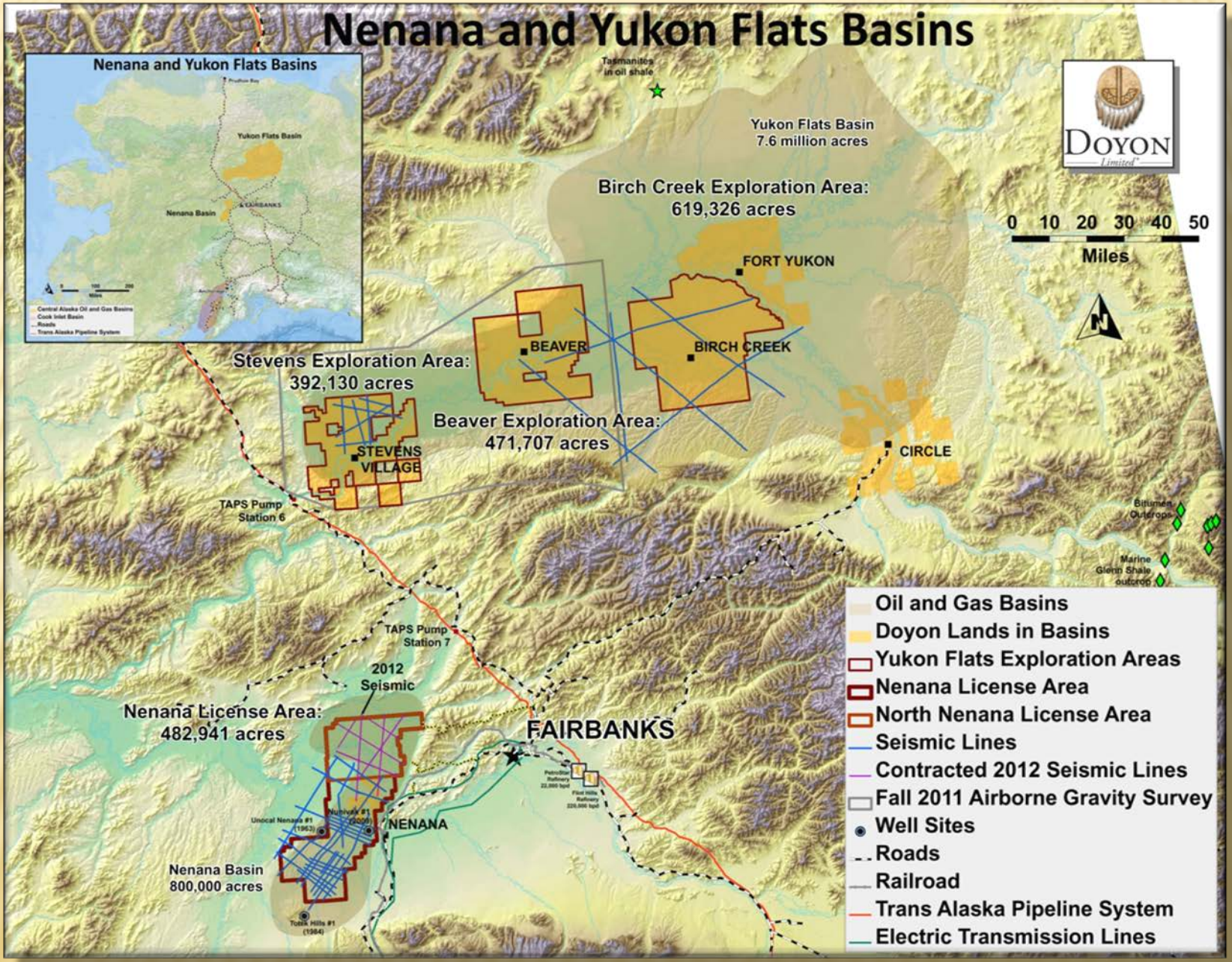
September 2012

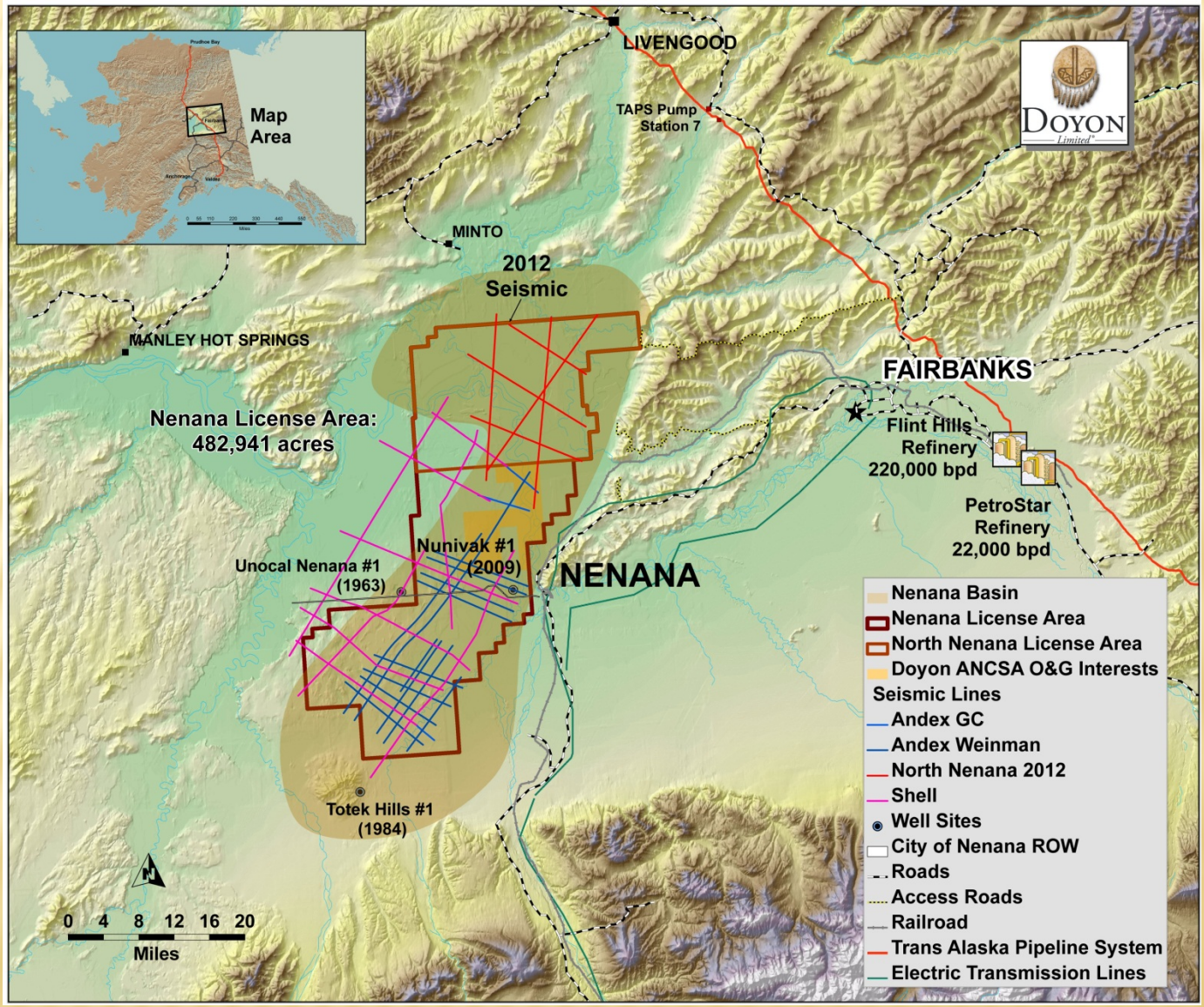
Doyon, Limited

INTERIOR OIL & GAS EXPLORATION

NENANA AND YUKON FLATS BASINS


Nenana and Yukon Flats Basins
Nenana and Yukon Flats Basins
Yukon Flats Basin
Nenana Basin
Tasmanites in oil shale
Yukon Flats Basin
7.6 million acres
Birch Creek Exploration Area:
619,326 acres
DOYON
Limited
0 10 20 30 40 50
Miles
FORT YUKON
BEAVER
BIRCH CREEK
Stevens Exploration Area:
392,130 acres
Beaver Exploration Area:
471,707 acres
STEVENS VILLAGE
CIRCLE
TAPS Pump Station 6
Bitumen Outcrops
Marine Glenn Shale outcrop
TAPS Pump Station 7
2012 Seismic
Nenana License Area:
482,941 acres
FAIRBANKS
NENANA
Nenana Basin
800,000 acres
Oil and Gas Basins
Doyon Lands in Basins
Yukon Flats Exploration Areas
Nenana License Area
North Nenana License Area
Seismic Lines
Contracted 2012 Seismic Lines
Fall 2011 Airborne Gravity Survey
Well Sites
Roads
Railroad
Trans Alaska Pipeline System
Electric Transmission Lines

NENANA BASIN



NENANA GENERAL INFO

- Location
  - Interior Alaska
  - Adjacent to Parks Highway and Alaska Railroad
  - 40-60 miles east to Fairbanks and North Pole
    - TAPS , Refineries
  - Same distance north to TAPS Pump 7
  - Capacity available in TAPS
  - Nearby major electrical transmission lines

NENANA GENERAL INFO

- Size
  - Sedimentary basin is about 80 miles x 15 miles = ~1,200 sq miles
  - Basin depth ~25,000 ft based on gravity and seismic
- Recent Land Position
  - 500,000 State and MHT acres controlled by Doyon, Limited group
    - ASRC, Rampart Energy, Usibelli Energy, Cedar Creek
  - No Doyon land in venture; some land in the area

NENANA EXPLORATION HISTORY

- Union well in 1963--shallow on western flank
- ARCO group and Shell seismic in early 80s
- State lease sale—many leases in the mid 80s
- All about oil then
- ARCO drilled in 1984--shallow well southern flank
- Mid-1980s oil price crash and industry departs

RECENT NENANA EXPLORATION HISTORY

- 2002–State exploration license
  - Doyon group focus on gas for Fairbanks
  - Doyon owns 20% of venture
- 2005—2D Seismic program
- 2006-2008 project freeze–Oil and gas tax battles JNU
- 2009–Drill to 11,136'
  - Not commercial
  - But demonstrated working petroleum system
- 2010–Doyon takes over as operator and increases ownership to 60% (ASRC, Rampart, Usibelli, Cedar Creek)
- Now–Doyon focus on oil more than gas
  - Well data and other studies
  - Gas market risks

2009 NUNIVAK #1 EXPLORATION WELL

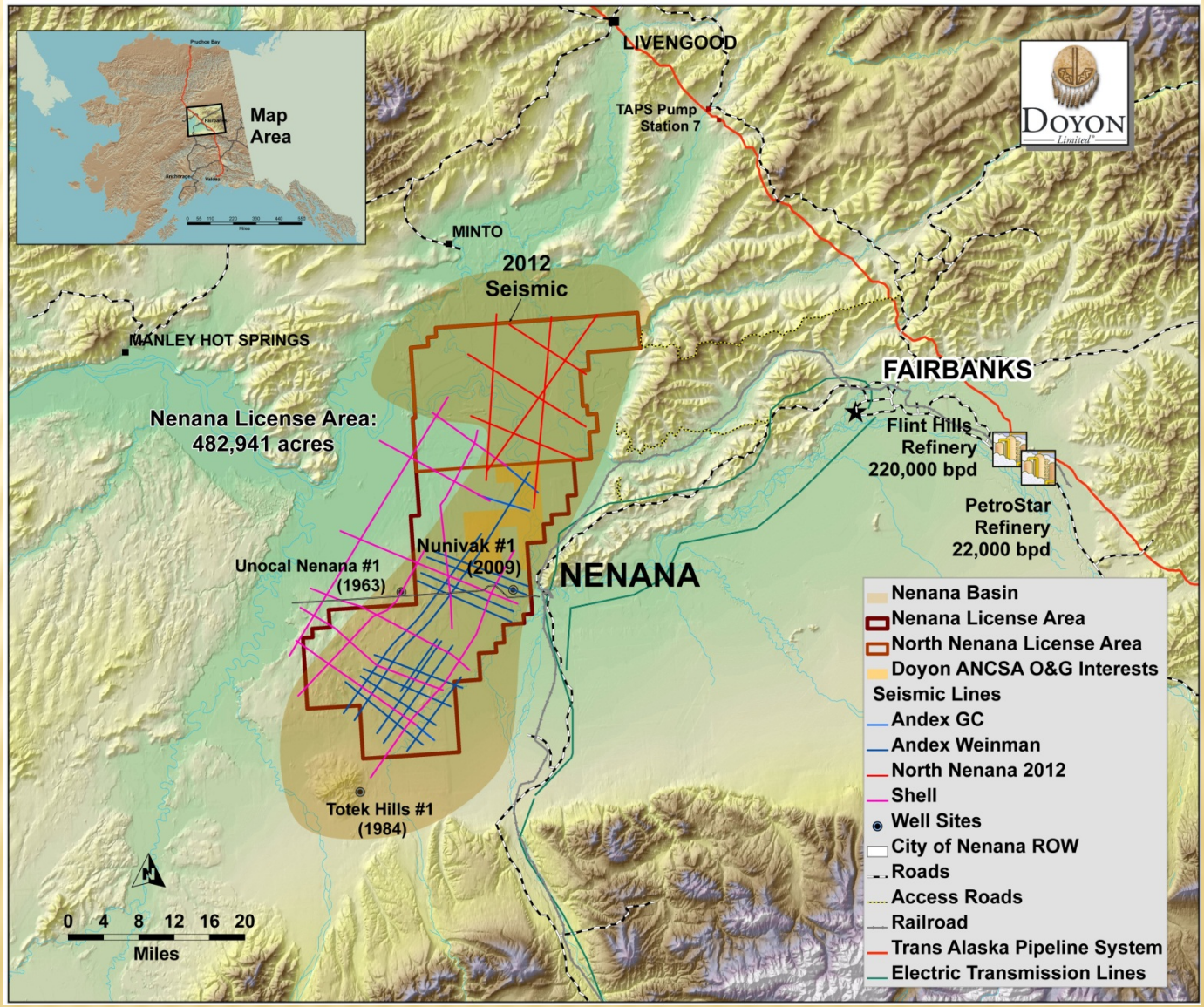
MORE RECENT EXPLORATION HISTORY

- 2010-2011 Doyon funded studies
  - Geochem, gravity, magnetics, related basin modeling
  - Results:
    - Immature oil prone source rocks in well
      - Thermogenic (wet) gas
    - Several parts of basin much deeper—heat needed
    - Northern basin area good place to shoot seismic
    - Plenty of life in southern part of basin

CURRENT NENANA EXPLORATION

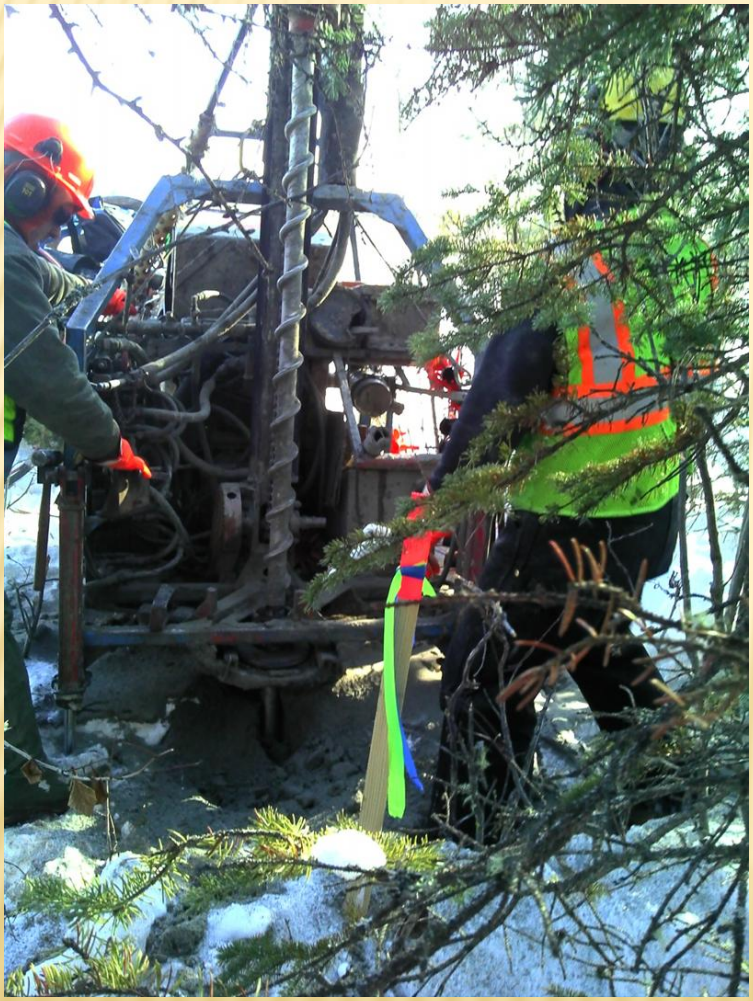
- 2012 Seismic program—100% Doyon
  - 2D--North end of basin
  - Area not shot before
  - Nenana base, other ops from Standard Cr. Rd and Minto
  - 100 line miles
  - 100% helicopter supported
  - Three phases : survey/drill/data gather (overlap)
  - Substantial local hire and support
    - Minto and Nenana

NENANA BASIN



2012 NENANA SEISMIC—DRILLING

2012 NENANA SEISMIC—DRILLING



2012 NENANA SEISMIC—DATA GATHER

2012 SEISMIC—DATA GATHER

NENANA PETROLEUM SYSTEM

- General setting:
  - Non-Marine sedimentary rocks
  - Relatively young
    - Tertiary age—25-70 million years old
  - Pull-apart or rift basin
    - Similar settings worldwide; analogs
- Basic petroleum system elements:
  - Source rocks—generate oil and gas
  - Traps/reservoirs/seals—hold hydrocarbons

PETROLEUM SYSTEM—SOURCE ROCKS

- Excellent source rocks in 2009 drill cuttings
  - Immature coals and coaly shales releasing gases (C1-C6) and trace oil
  - Should be mature in deeper parts of basin
    - Hydrocarbons dominated by oil rather than gas
- But not all coals expel oil in commercial quantities—a risk

PETROLEUM SYSTEM—SOURCE ROCKS

- Also, possible deeper lake bed shales–analog basins
- Light oil and “heavy gases” in surface geochem
- Coals and/or shales expelling thermogenic hydrocarbons
  - How much?
  - Traps and seals?

PETROLEUM SYSTEM—TRAPS AND SEALS

- Numerous reservoir types on seismic
- Traps formed before hydrocarbons expelled (timing)
- Seals
  - Fine grained clays and shales
  - Could be weak link–another risk

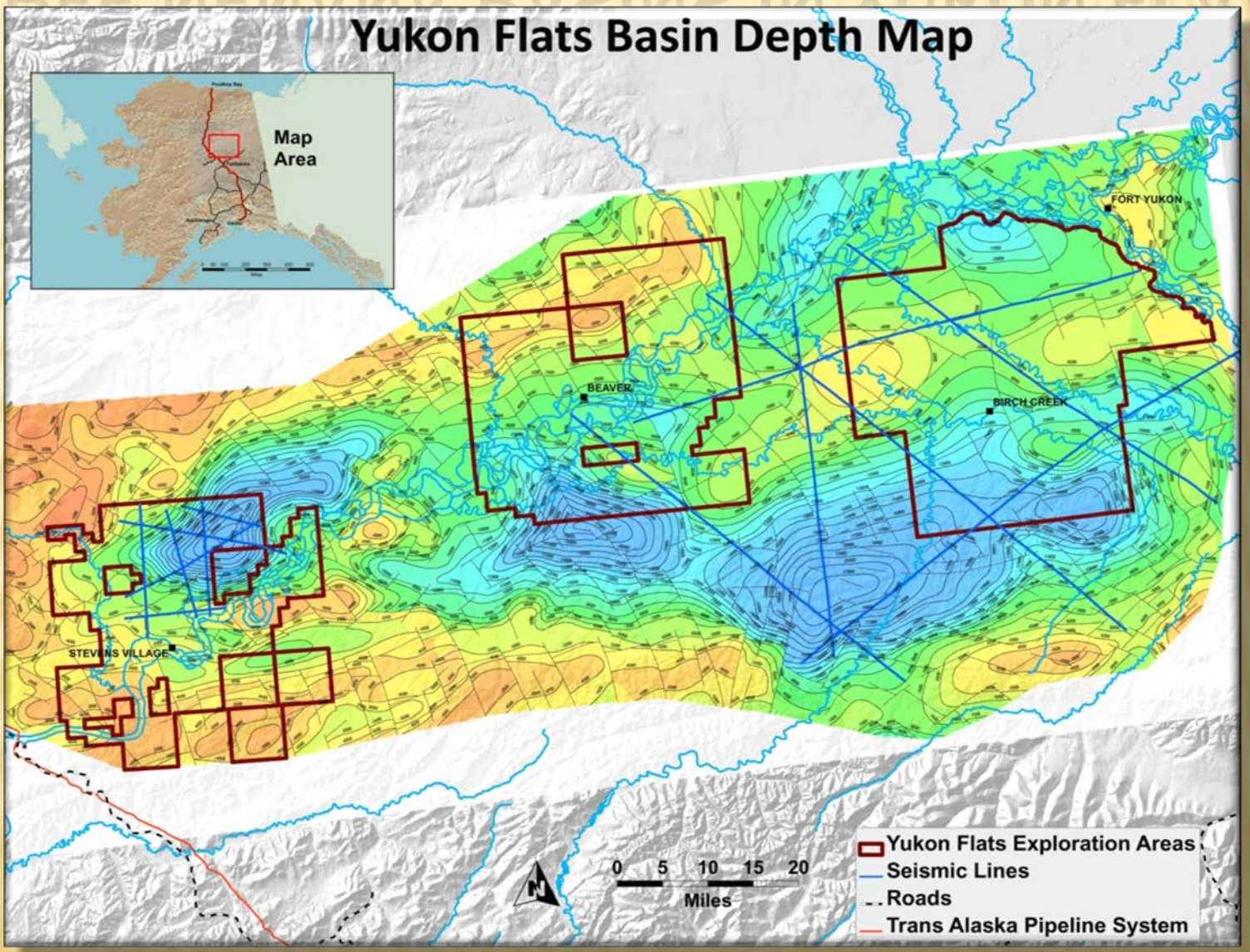
CURRENT STATUS AND EFFORTS

- Doyon now 100% owner on northern part of basin
- Analyzed 2012 seismic
- Licensed heritage seismic and reprocessed using current technology
- Re-mapped entire basin subsurface
- Re-evaluated geologic risks (source, trap and seal)

NENANA PLAN FORWARD

- Take most prospective State lands to lease in fall 2012
  - About 400,000 acres/$3 per acre/year
  - In north and south areas
- Drill up to 3 delineated prospects 2013-2015
  - Doyon commitment to drill at least one new well–South
- More seismic needed, especially on north
- Welcome new industry partners to spread economic risks, if make multiple drilling commitments

THREE NENANA BASINS IN YUKON FLATS



YUKON FLATS BACKGROUND/SUMMARY

- Focus entirely on Doyon owned minerals
- Similar geology to Nenana
  - Age and basin formation
  - Non-marine coals/shales as sources
  - Difference: marine source rocks also possible
- 3 deep sub-basins—Stevens Village, Beaver, Birch Creek

YUKON FLATS BACKGROUND/SUMMARY

- Strong local support at Stevens and Birch Creek
- Stevens favorable logistics similar to Nenana
  - Haul Road and TAPS close
- Beaver and Birch Creek logistics challenges
  - Remoteness
  - Uncooperative/hostile USFWS neighbors

YUKON FLATS EXPLORATION OVERVIEW

- Exxon and USGS geophysics, other heritage studies
- Doyon 2D recon seismic at Stevens 2010
- Doyon airborne gravity survey 2011
- Lake bed sediments geochemistry 2011/2012
  - Extensive evidence of thermogenic oil and gas
- New Doyon seismic sanctioned 2013
  - Stevens Village 3D
  - Identify drill targets
- Industry exploration investment needed beyond 2013

STATE OF ALASKA IS A GREAT "PARTNER"

- Major factors in Doyon decision making:
  - Growing confidence in geologic promise of both areas
  - State exploration credits program, including new frontier basin credits
  - Recent changes to oil taxes for frontier basins
- A big thank you to the Legislature and Governor Parnell
  - Strong bi-partisan support