

Investor Technical Presentation - October, 2020



Location, Location, Location...Unique opportunity on the Alaskan North Slope

The Pantheon portfolio consists of **multi billion barrels of discovered oil in place**, located near the only major highway and the underutilized Trans-Alaska Pipeline on the Alaskan North Slope

The location, combined with an **Alaskan fiscal regime** with **low royalty rates of 13.5% to 18.1%** provides an opportunity for Pantheon to pursue **impactful projects** that deliver **substantial valuation potential**

EXPERIENCED BOARD & MANAGEMENT



BOARD & MANAGEMENT

Phillip Gobe - Chairman

+40 yrs' experience in the sector. Non-exec director of the S&P 500 Pioneer Natural Resources and Scientific Drilling International Inc, the 5th largest provider of directional drilling & measurement equipment and operational services in USA. Formerly head of Prudhoe Bay operations in Alaska for ARCO

Jay Cheatham - Managing Director

Petroleum Engineer. +40 yrs' experience. Ran family E&P business prior to joining ARCO. At time of BP's \$30bn acquisition Jay headed up ARCO International (responsible for all operations outside USA). Prior to that he led ARCO exploration and production for USA (Gulf coast region)

Robert Rosenthal - Technical Director

Geologist +40 yrs' experience. Founding Manager of Great Bear Petroleum. Ex BP (Global Consultant - Exploration worldwide). Expert in seismic stratigraphy and high tech geophysics

Justin Hondris - Director, Finance & Corp Development

Banking & financial background with over 25 yrs' experience including roles in investment banking & private equity with 14 yrs specialising in energy

Patrick Galvin - Chief Commercial Officer / General Counsel Alaska

Former Alaska State Commissioner of Revenue, Former Petroleum Land Manager for the Alaska Dept of Natural Resources, overseeing the State's oil and gas leasing program. Former partner at K&L Gates

Jeremy Brest – NED

+20 yrs' experience banking and financial advisory. A specialist in structuring and execution of private transactions

Mario Traviati - Advisor to the Board

Previous head of Asia Energy research for Merrill Lynch. +35 years working, analysing & funding oil and gas projects, Founding Manager Great Bear Petroleum, previous Woodside Petroleum

Thomas Michael Duncan - Vice President Operations

Professional Engineer, licensed in Alaska with experience and expertise in conventional and unconventional reservoirs throughout North America

Ed Duncan - Senior Geoscience Consultant

Founder Great Bear Petroleum, Geologist +37 years experience

Jerry Nichols - Senior Geophysicist Consultant

Geophysicist with +40 years of experience in numerous worldwide exploration and development projects, including Alaska

TECHNICAL PARTNERS

eSeis Inc.

A pioneer in the use of Seismic Petrophysics / High Tech Geophysics for the petroleum industry. Deep experience in Alaska.



Why Alaska North Slope?

- ✓ Home to the USA's largest 2 oilfields
- ✓ Excellent infrastructure with surplus capacity
- ✓ Onshore, conventional (not shale) projects with enormous potential
- ✓ Host to some of the world's largest discoveries over recent years

Pantheon in Alaska

- ✓ **Lower breakeven** than most of world
 - ✓ Culmination of +\$250m spent and +10 years' work invested into Pantheon's acreage
 - ✓ Commanding acreage footprint (working interests at 89% – 100%). +150,000 acres
 - ✓ Deep experience in Alaska
 - ✓ c. 1,000 sq miles 3D seismic, majority of which is **proprietary**
 - ✓ Appraising multi billion barrels of oil in place
 - ✓ Located underneath & adjacent to largest pipeline in USA
 - ✓ Moderate drilling depths & no known environmental or social/native impediments
 - ✓ 2 confirmed discovery wells on acreage => opportunity to exploit/commercialise rapidly after drilling
 - ✓ 2 main target formations (Brookian & Kuparuk) have productive analogs in the immediate area.
 - ✓ Targeting pilot production from Alkaid 2021
 - ✓ Talitha#1 well (Jan 2021) – believed to be one of the highest impact wells to be drilled globally in 2021

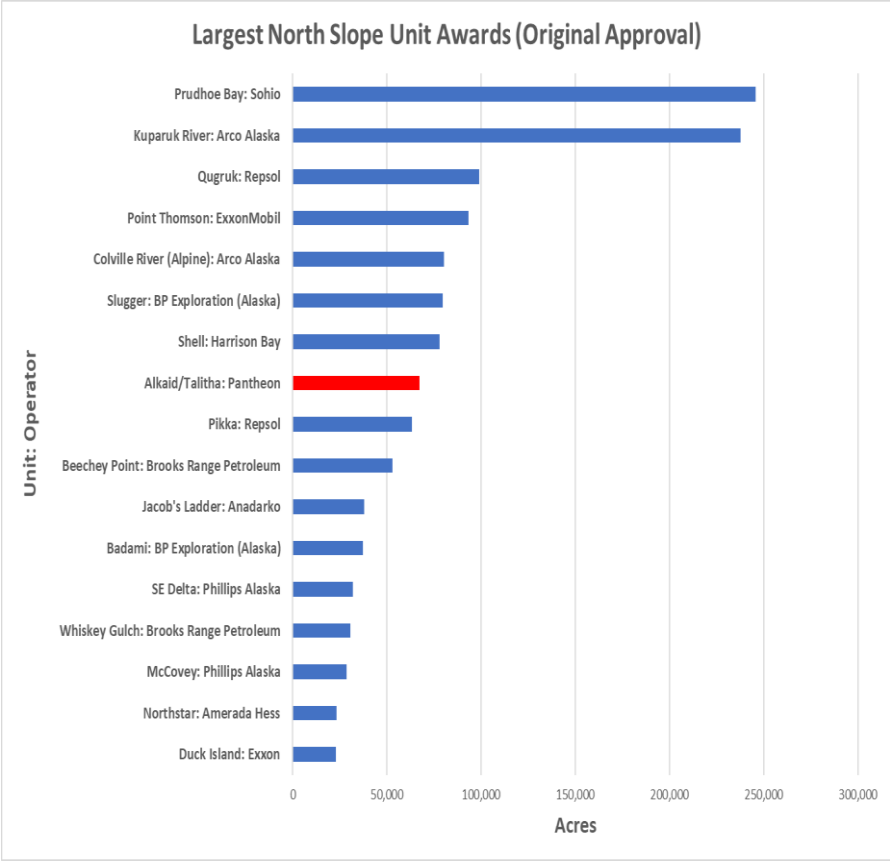
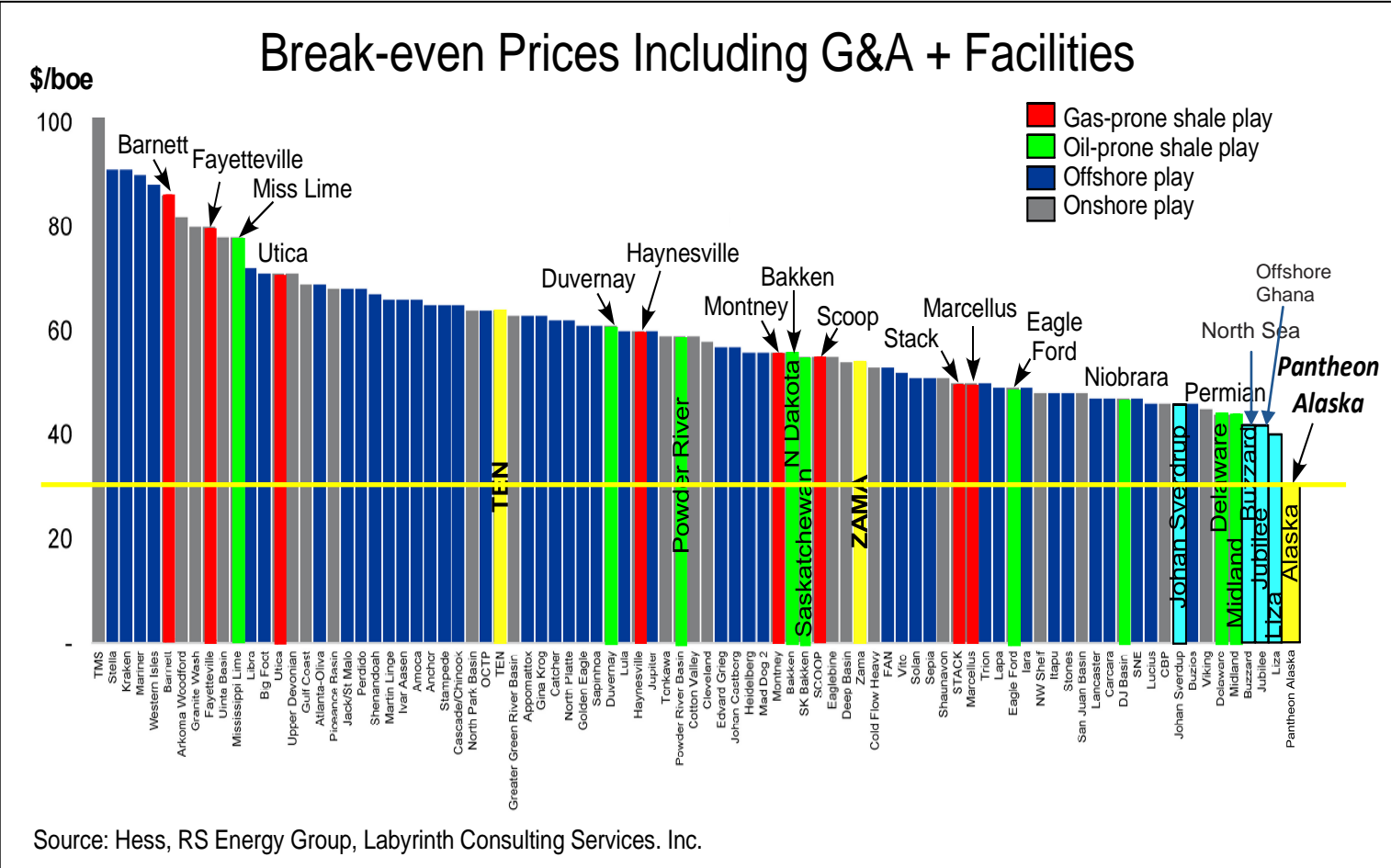
GLOBAL CONTEXT

COMPARATIVE GLOBAL PROJECT BREAK-EVEN PRICES



Break-even prices are forecast to be some of the lowest globally

Pantheon is among the largest Production Unit holders on the ANS



WORLD CLASS SIZE & SCALE

ALASKA NORTH SLOPE: “SUPER BASIN – Ready for Resurgence”



“Alaska North Slope a ‘Super Basin’ ready for Oil Resurgence as Oil Production Expected to Grow 40 Percent in Eight Years”
[IHS Markit , 2018]

IHS Markit¹ defines ‘super basins’ as basins which:

1. have multiple reservoirs and source rocks;
2. diverse play types across numerous geologic horizons;
3. infrastructure with access to markets;
4. established service sector and supply chains; and
5. hold **at least 5 billion BOE** in conventional remaining reserves and have already produced at least 5 billion BOE

Based on recent discoveries IHS estimates that the ANS offers:

38 billion boe of undiscovered potential vs 16 billion boe produced

- 28 billion barrels of oil yet to be discovered
- 50 trillion cubic feet of gas yet to be discovered



*“For onshore light-oil opportunities in a **stable country** with a **positive investment outlook**, the **ANS** provides a viable alternative to the competitive Lower-48 **unconventional basins**”*

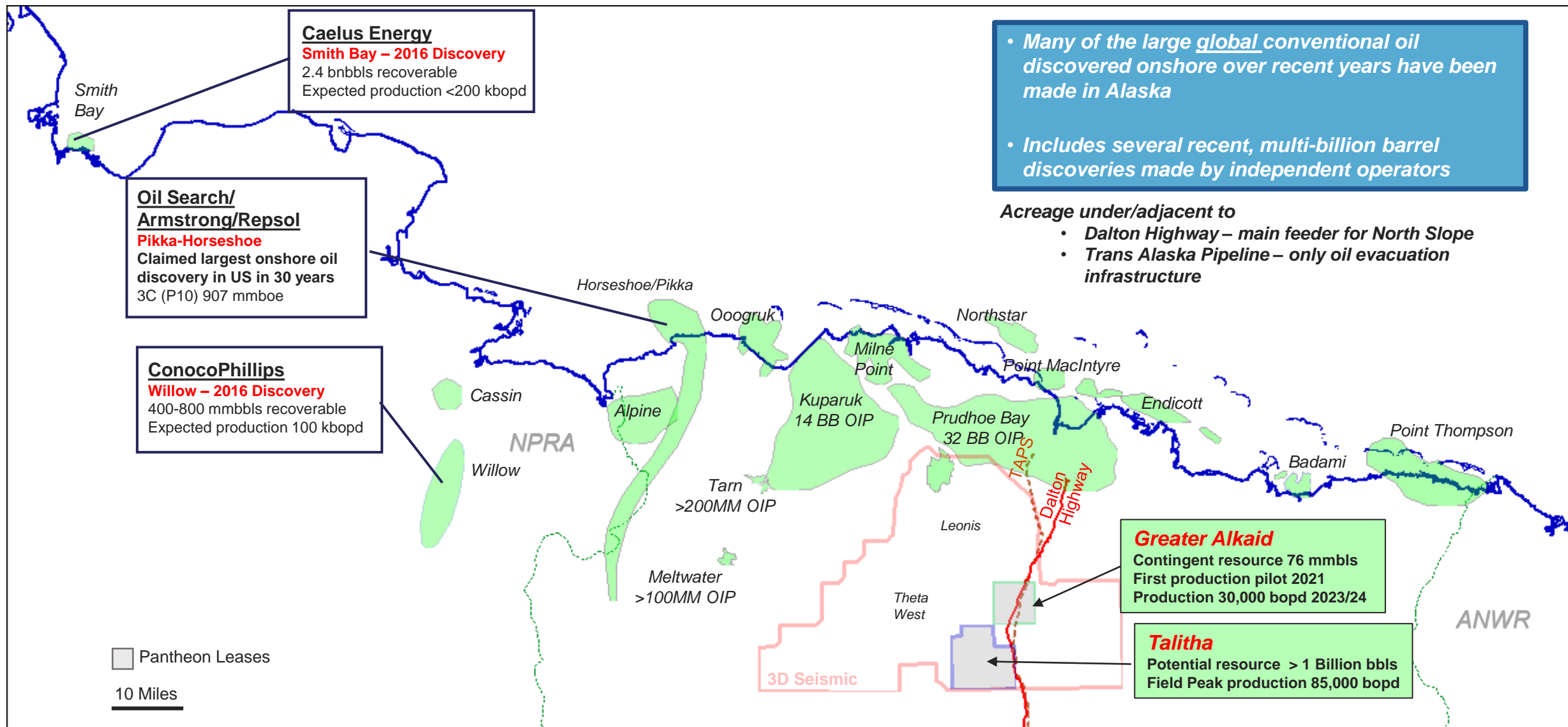
*“Previously thought of as a mature basin, recent large discoveries made in the shallow Nanushuk and Torok formations indicate **this basin has a lot of room left to grow** beyond the Endicott and Ivishak formations, which are the reservoirs from which the giant Prudhoe Bay and Endicott fields produce”*

Pantheon – in the right place, at the right time!

1. [IHS Markit](#) (Nasdaq: INFO), a world leader in critical information, analytics and solutions

REGIONAL CONTEXT

PANTHEON'S ACREAGE ON THE NORTH SLOPE



PANTHEON SIGNIFICANT MILESTONES ACHIEVED IN 2020

Executing the Plan



Jan 2019 - Acquired GBP and raised US\$21m, Difficult markets - China trade war crashed DJI

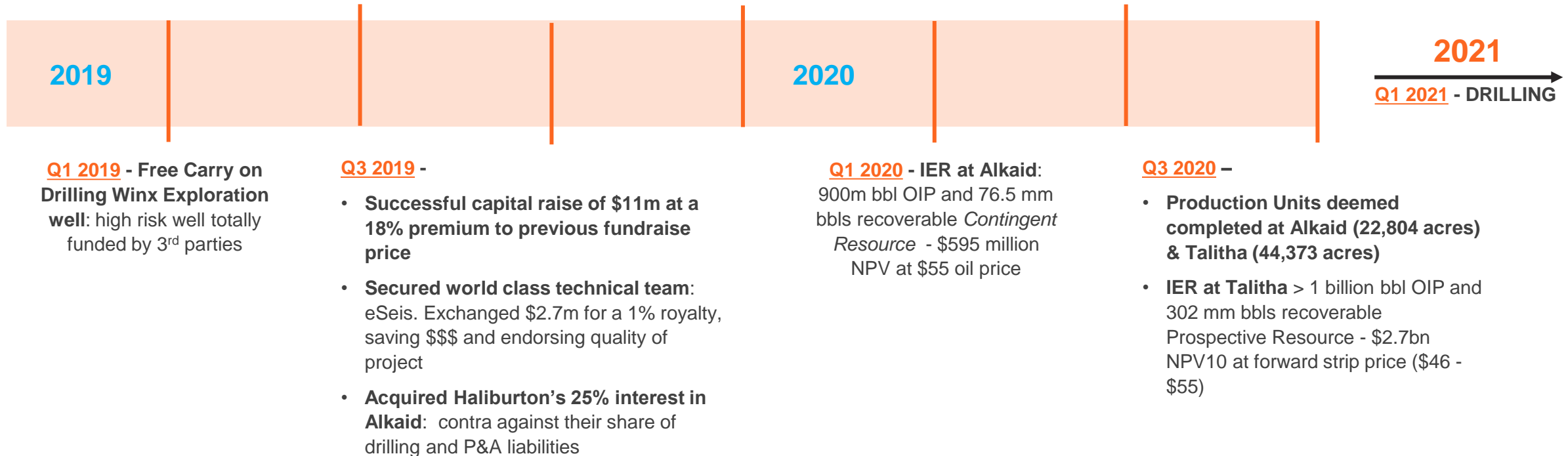
Q2 2019 - Successful Production Test at Alkaid: Confirmed major oil accumulation under Alaskan Pipeline & Dalton highway

Q4 2019 -

- **Award of new acreage:** secured 2 additional oil accumulations - Theta West & Leonis. **Estimated > 1 Billion bbl OIP**
- **Commenced Farmout Process**

Q2 2020 - **COVID disruption to farmout process:** created virtual data room. Interest ranges from NOC's to smaller boutique groups

Q1 2021 - 89-100% WI on all projects provides control & flexibility with option to fund via farmout



Project Overview

1. Greater Alkaid (100%)

2. Talitha (89.2%)

- a. Shelf Margin Deltaic
- b. SlopeFan System
- c. Kupaaruk
- d. Basin Floor Fan

3. Theta West (100%)

4. Leonis (100%)



PROJECT RESOURCE SUMMARY

Not a 'one project' company



- **Four Projects in same geographic location**
- All projects contain discoveries of oil
- Two projects matured – Greater Alkaid & Talitha
- Greater Alkaid successfully tested oil zone
- IER on Greater Alkaid
- Talitha to test three major zones – possibly more
- IER on primary SMD objective at Talitha
- Company estimates two other zones
- Kuparuk estimate of 341 mbbls recoverable
- Slope & Basin Floor Fan Systems under evaluation

		Company Estimates		Independent Expert	
Project	Working Interest	Oil in Place (Million Bbl oil)	Recoverable Resource Millions Bbls	Recoverable Resource Millions Bbl oil	Project NPV (\$m)
Greater Alkaid	100%	900	90 - 135	76.5	\$595 ⁽³⁾
Talitha Project	89%				
1. Shelf Margin Deltaic ¹		1,800	483	304	\$2,694
2. Kuparuk		1,364	341	n/a	n/a
3. Slope Fan System ²			tbd	tbd	
4. Basin Floor Fan		tbd	tbd		
Total		4,064	939	380.5	\$3,289
Theta West	100%	} >1,000 combined	tbd		
Leonis	100%		tbd		

Notes:

1. Shelf Margin Deltaic - Company Estimate to be upgraded Oct 2021
2. Slope Fan System - analysis underway. To be announced Q4 2021
3. As at Jan 2020, at \$55 oil price held flat

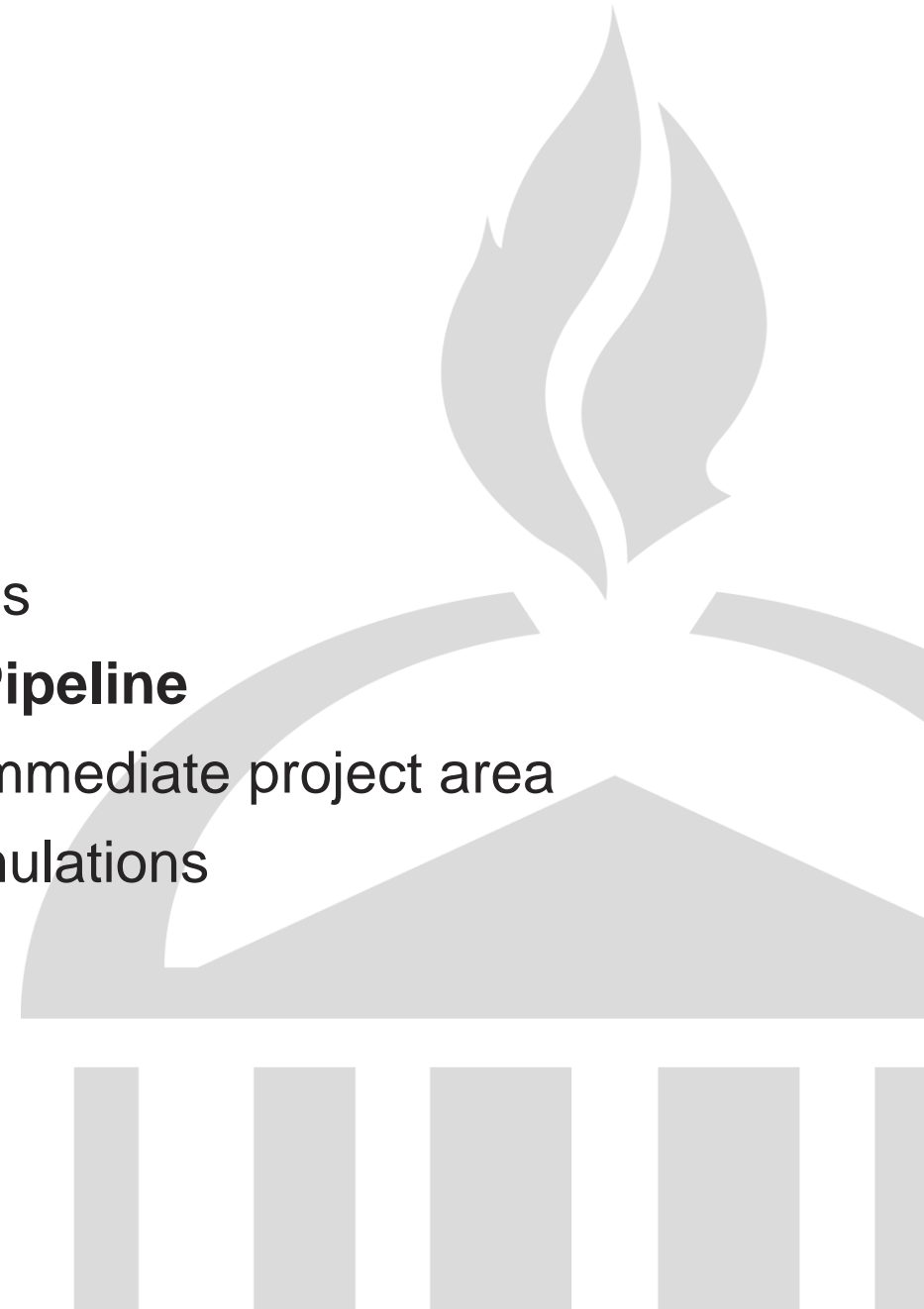
Greater Alkaid

- ❖ Confirmed Oil Discovery with 35+ deg API oil
- ❖ Contingent Resource 76.5 MMBO recoverable
- ❖ Under Dalton Highway and Trans-Alaska Pipeline
- ❖ Substantial resource potential to be evaluated
- ❖ Discovery well terminated in oil zone



Talitha Appraisal Project

- Multi-billion Barrel Oil in Place Potential
- Recoverable oil potential in excess of 1 billion barrels
- **8 Miles from Dalton Highway and Trans Alaska Pipeline**
- 2 Target zones have proven productive analogs in immediate project area
- Talitha well targets three and possibly four oil accumulations
 - Shelf Margin Deltaic
 - Slope Fan Systems
 - Kuparuk



TALITHA #1 APPRAISAL WELL

High Impact well targeting 1 billion bbls of recoverable oil



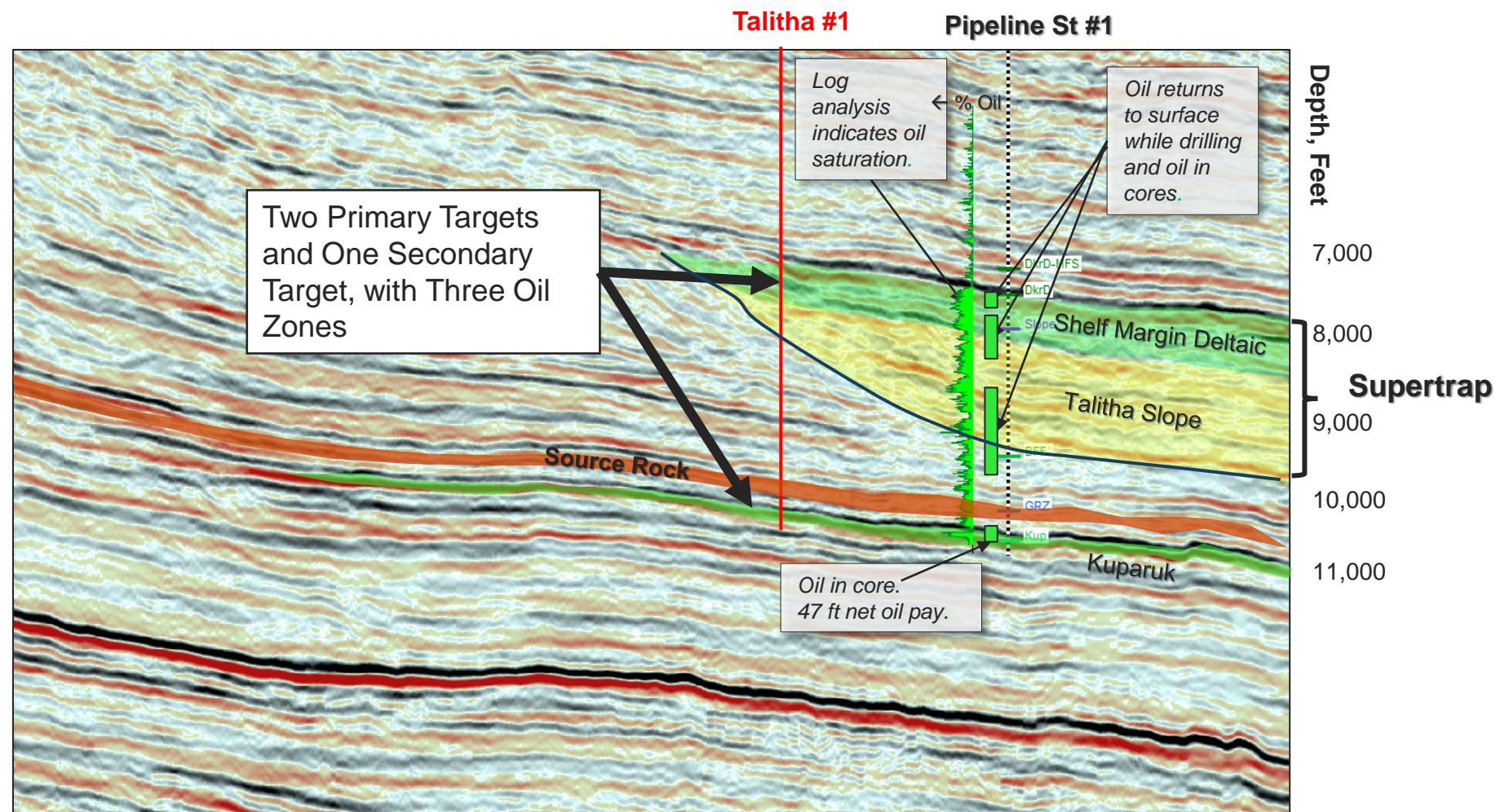
Talitha Appraisal well

Updip from Pipeline State #1 discovery well - confirmed oil in all target formations

Super trap with >2000 feet hydrocarbons in discovery well

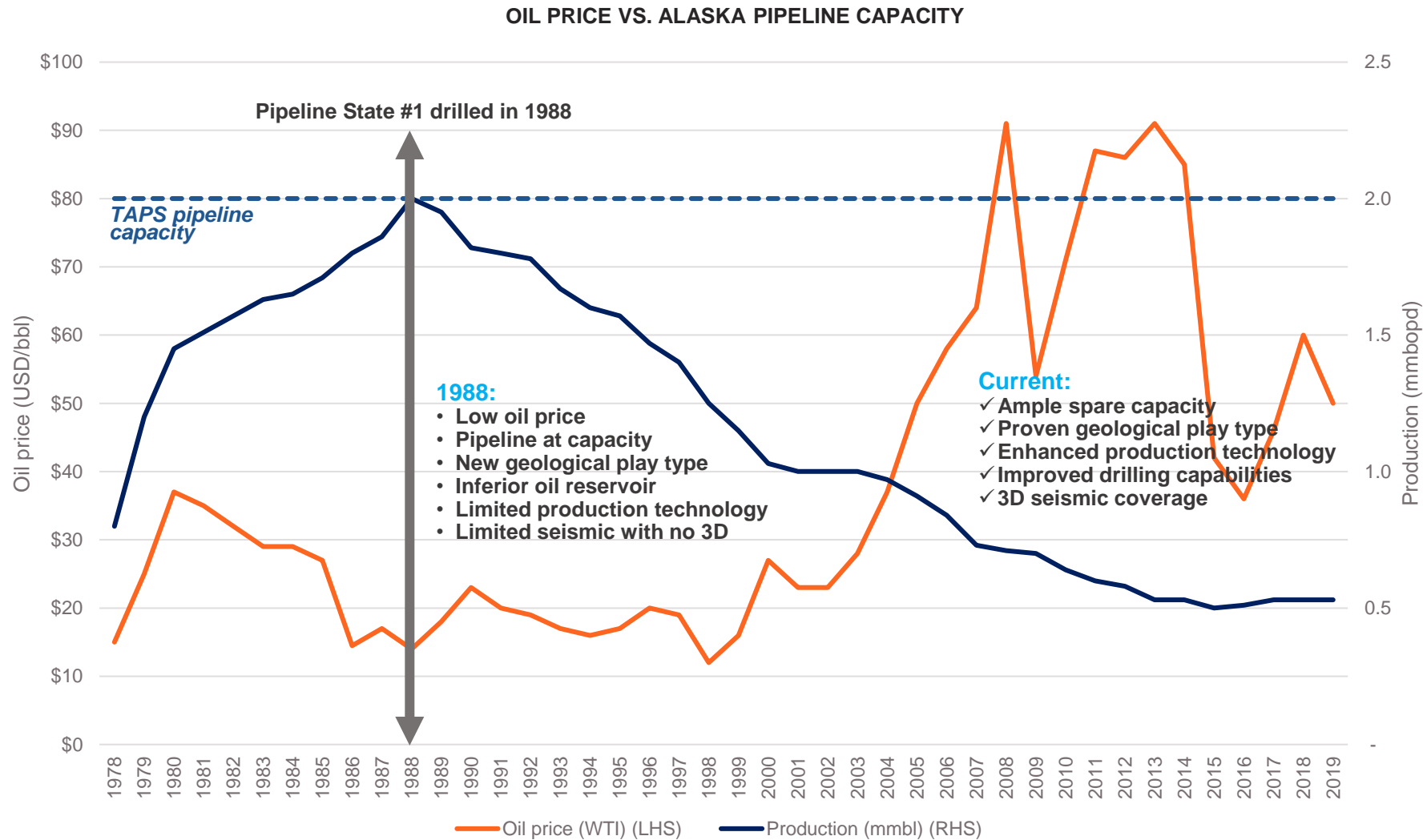
Targeting 3 independent zones with Multi Billion barrel OIP potential

Potential for over 1 billion bbls of recoverable across all target formations.



PIPELINE STATE WELL

Despite encountering oil at multiple levels – why was it not tested in 1988?



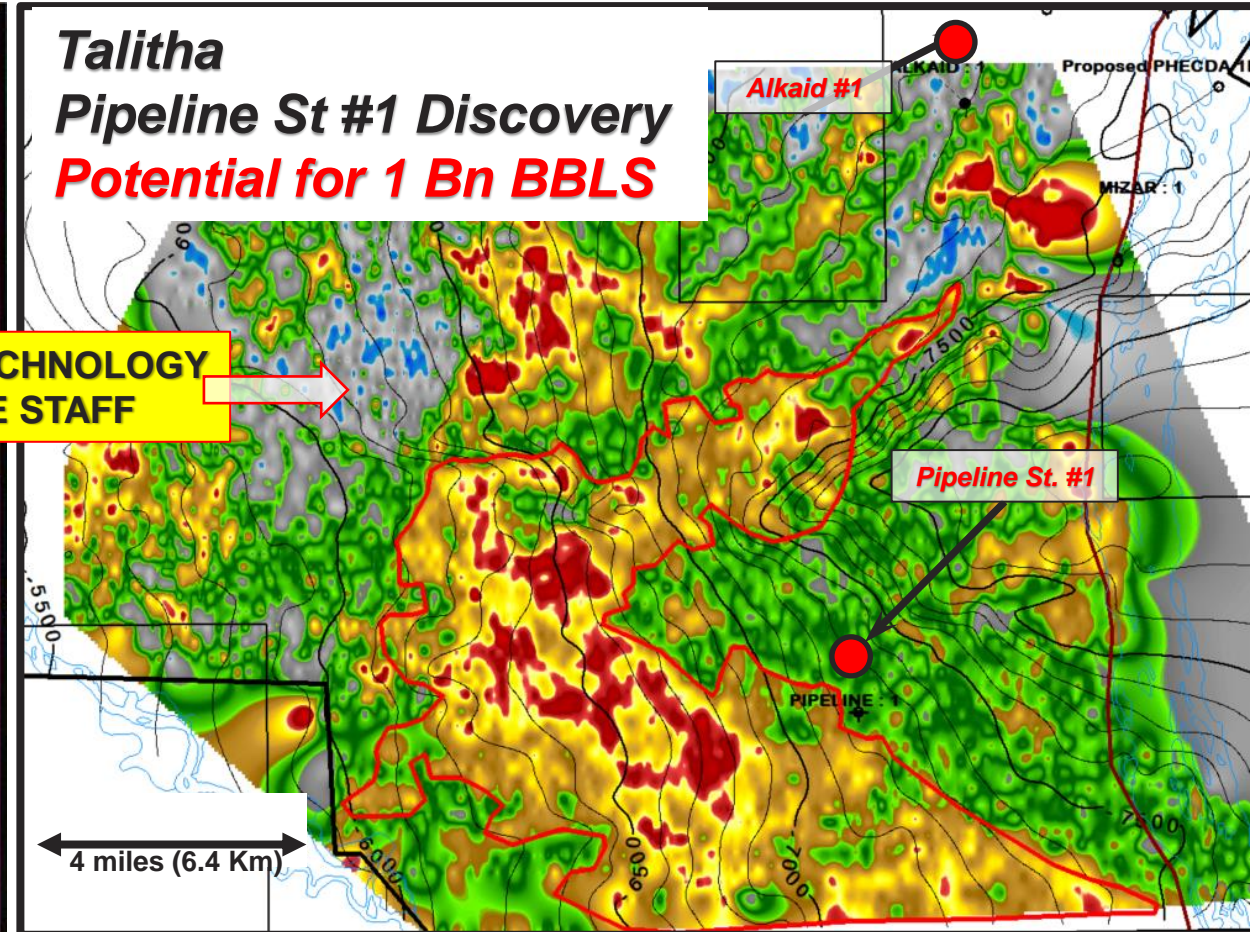
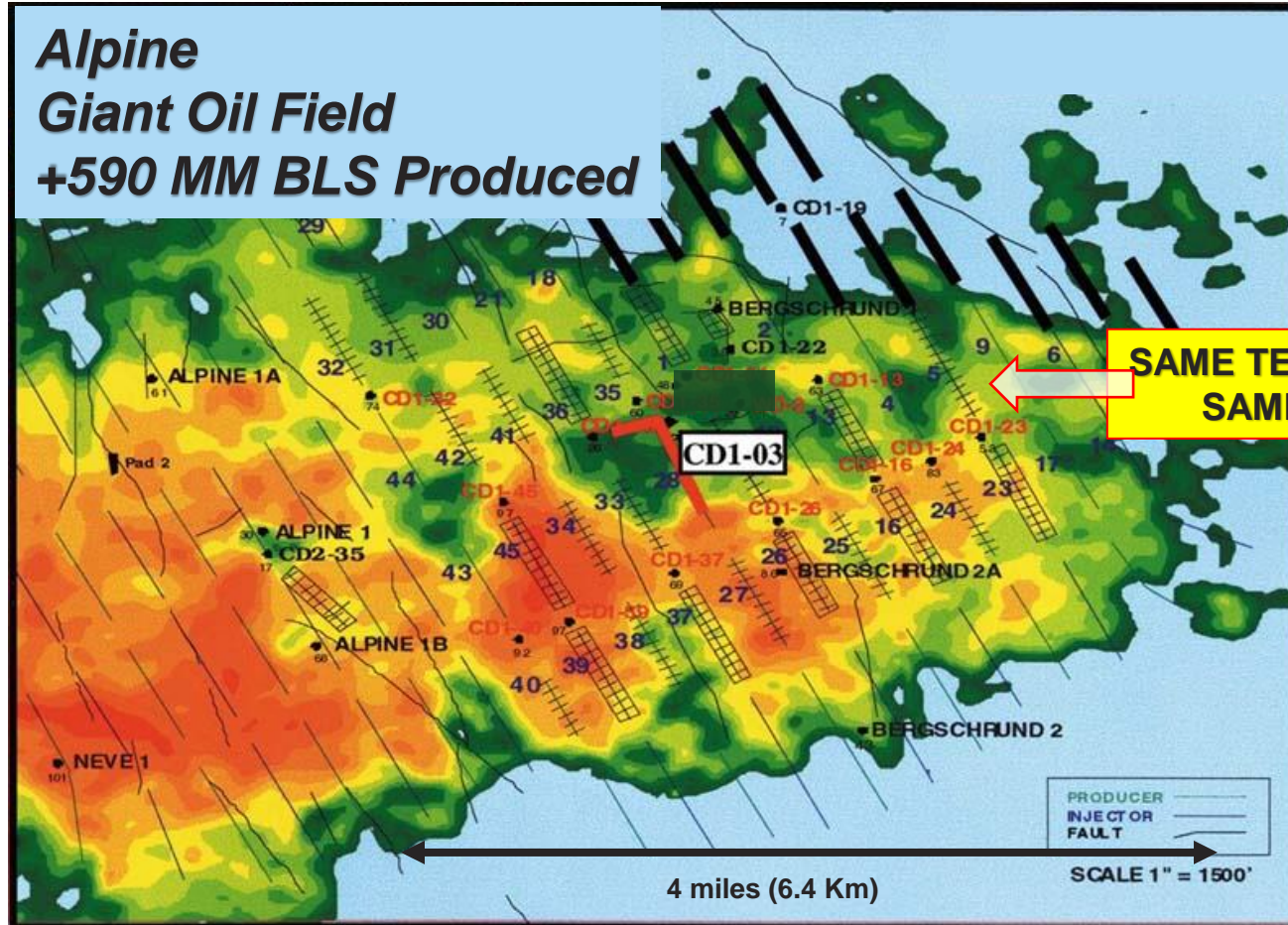
Source: Alaskan Department of Revenue

ALPINE FIELD: DISCOVERY ANALOG FOR TALITHA

Comparison of Talitha Shelf Margin Deltaics and Alpine Seismic Attribute Responses

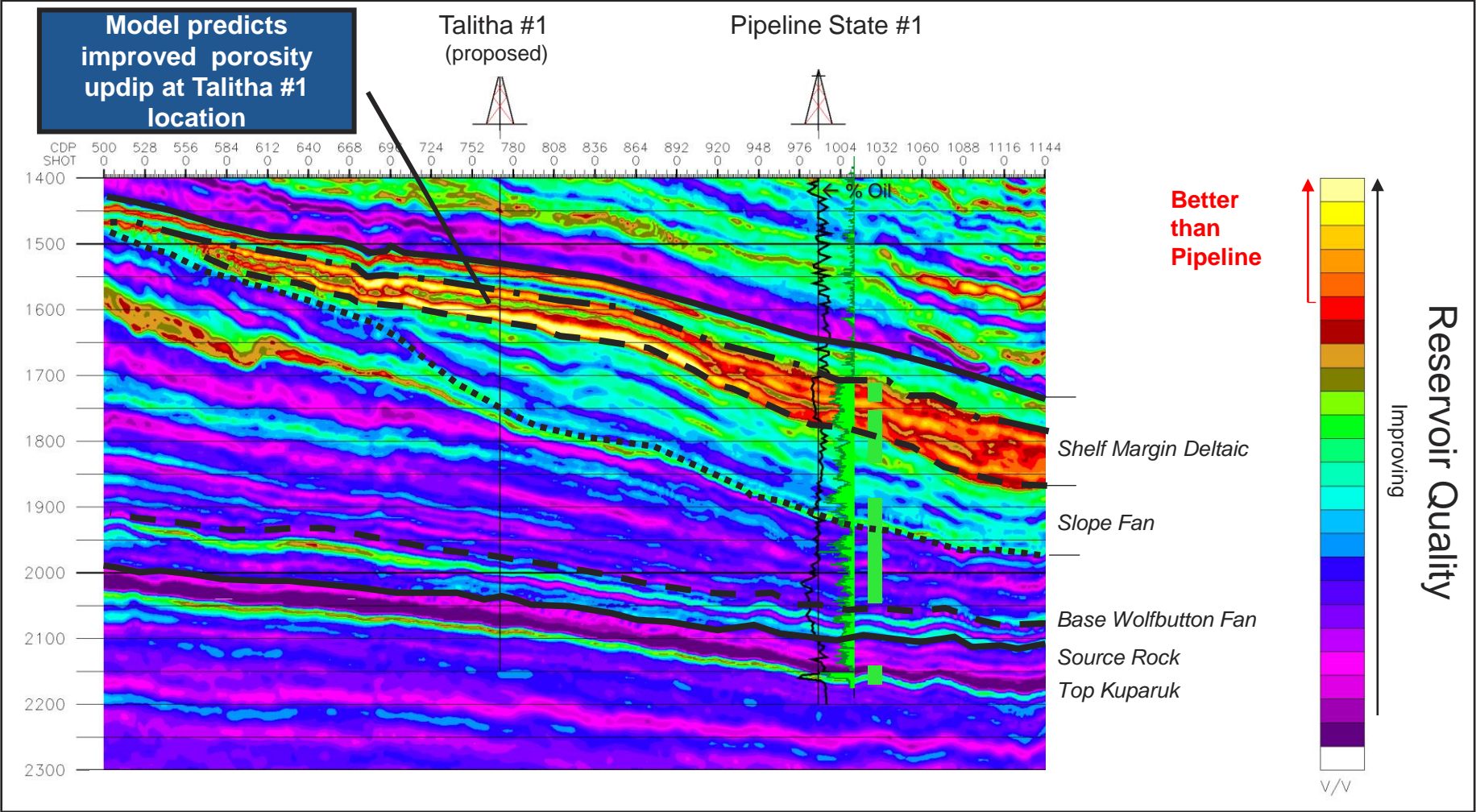


TWO EXPERTS THAT DISCOVERED ALPINE ARE WORKING ON TALITHA



SAME TECHNOLOGY
SAME STAFF

RESERVOIR ATTRIBUTE
RESERVOIR QUALITY IMPROVES AT TALITHA #1 LOCATION



Other Projects

- ❖ Acquired two additional projects:
 - ❖ Theta West
 - ❖ Leonis
- ❖ Oil confirmed in multiple analog wells
- ❖ >1 billion barrel oil in place potential

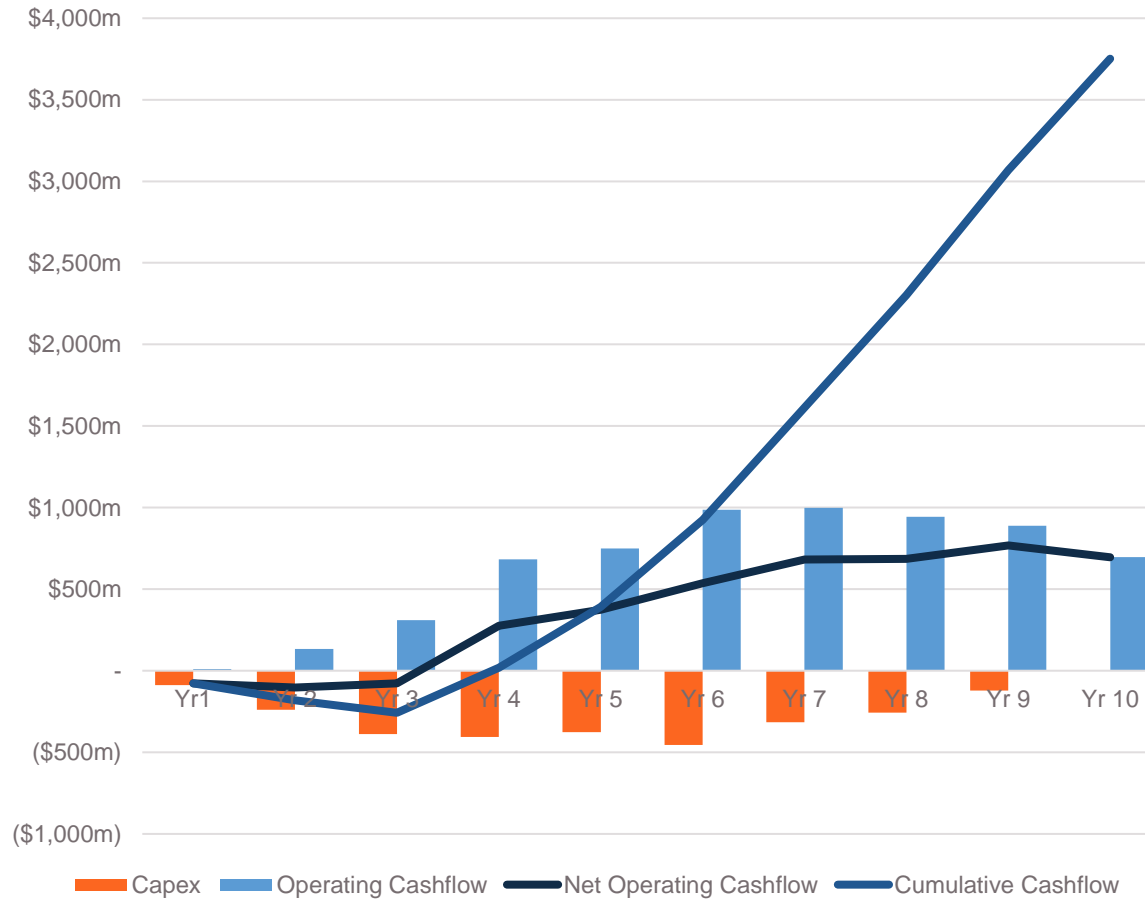


SHELF MARGIN DELTAIC CASHFLOW ANALYSIS

Expediting Cashflow through technology innovation

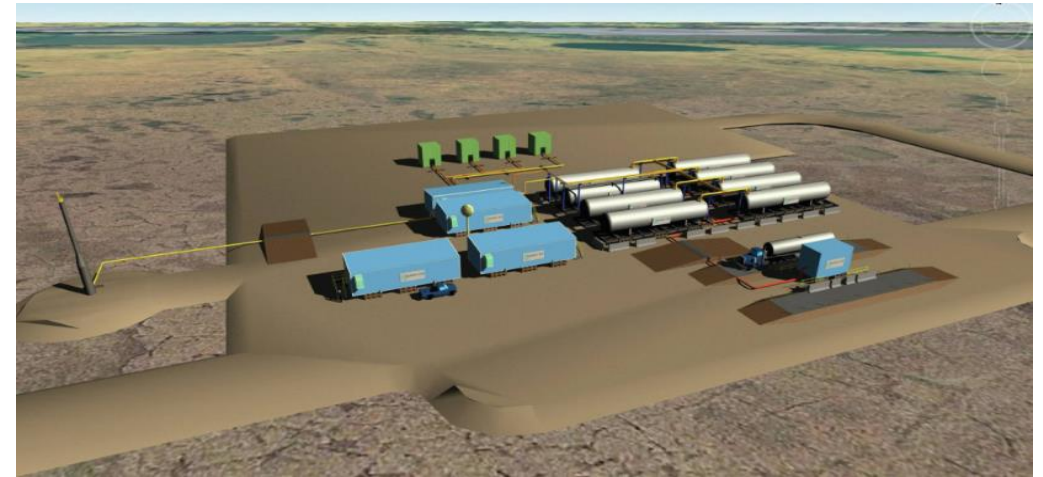


SMD PROJECT FORECAST CASHFLOW ANALYSIS



Source: Lee Keeling & Associates. The chart represents forecast cashflows underlying the previously disclosed \$2.7bn NPV10, based upon a modelled development scenario

MODULAR ARCTIC PRODUCTION SYSTEM (MAPS)¹



Source: Alaska Journal of Commerce, 21 February 2018

- Mobile Arctic Production System by NANA WorleyParsons
- Leased stand alone early production system
- Fully modularised, mobile and customisable solution
- Consists of four modules: one each for power generation, natural gas handling, electrical controls and a 5,000 barrels per day liquids production module. Scalable at 5000 barrels of liquids/day
- trucking facilities with storage or connect directly into pipeline.
- MAPS can be leased hence minimal facilities cost to operator
- Preclude spending upfront \$300 m on upfront processing facilities.
- **Perfect for PANR unique location – adjacent road and pipeline**

SUMMARY HIGHLIGHTS

World Class Petroleum Appraisal and Development



Pantheon is poised to appraise a large, independently validated resource

- 1 No debt
- 2 Executive and technical teams with **proven exploration and production capabilities in Alaska**
- 3 Tangible, valuation milestones achieved in past 21 months post Great Bear acquisition
- 4 **Unique acreage position** adjacent to infrastructure expedites economic development
- 5 Discovered oil resources focused on appraisal and development – **not exploration!**
- 6 Two discoveries independently assessed with Production Unit applications currently underway
- 7 Near term drilling appraising these discoveries – **converting resources to reserves & cashflow**
- 8 Access to **underutilized export infrastructure** adjoining project area – ready to be employed
- 9 First well in Q1 2021* is targeting 1 billion bbls of recoverable oil – **appraisal !**
- 10 **Next 12 months of activity set leverages \$250 million invested** to date and a decade of work

Portfolio includes multi billion bbls of OIP + in excess of 1 billion bbls of recoverable oil potential in multiple projects to be appraised and tested over next 12 months

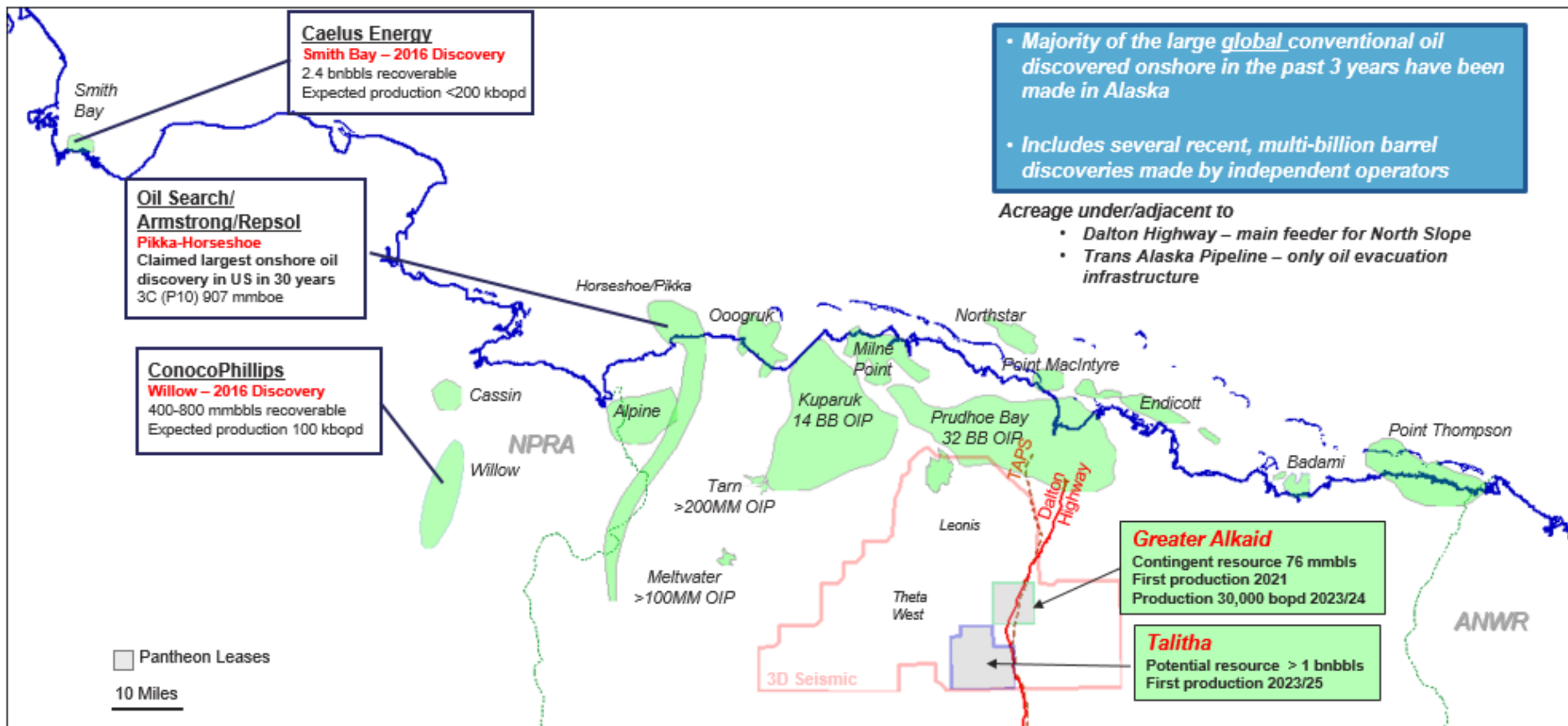
* Subject to completion of Farmout

Pantheon Resources plc

Alaska Project Overview

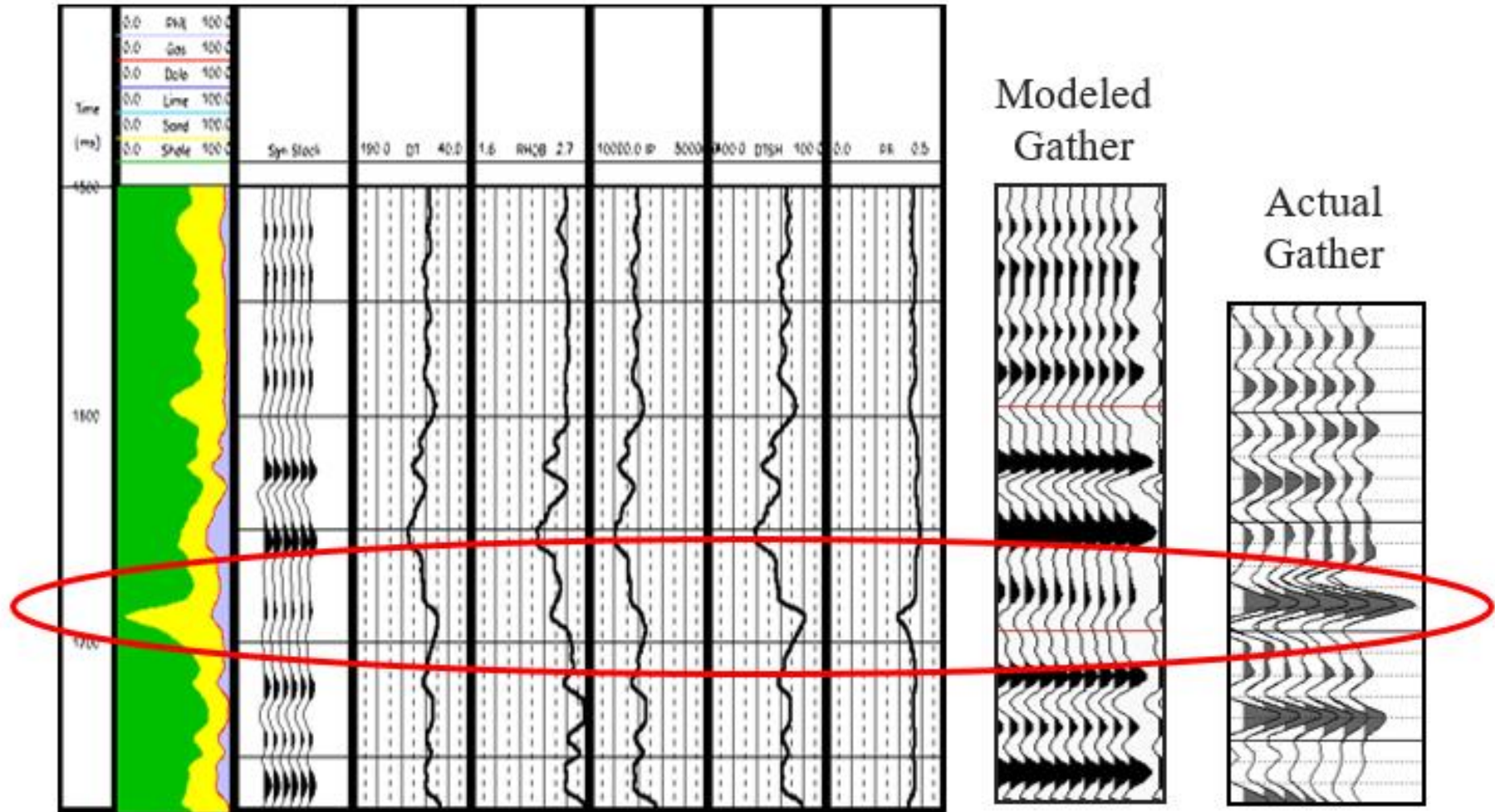


PANTHEON'S ACREAGE ON THE NORTH SLOPE – REGIONAL CONTEXT





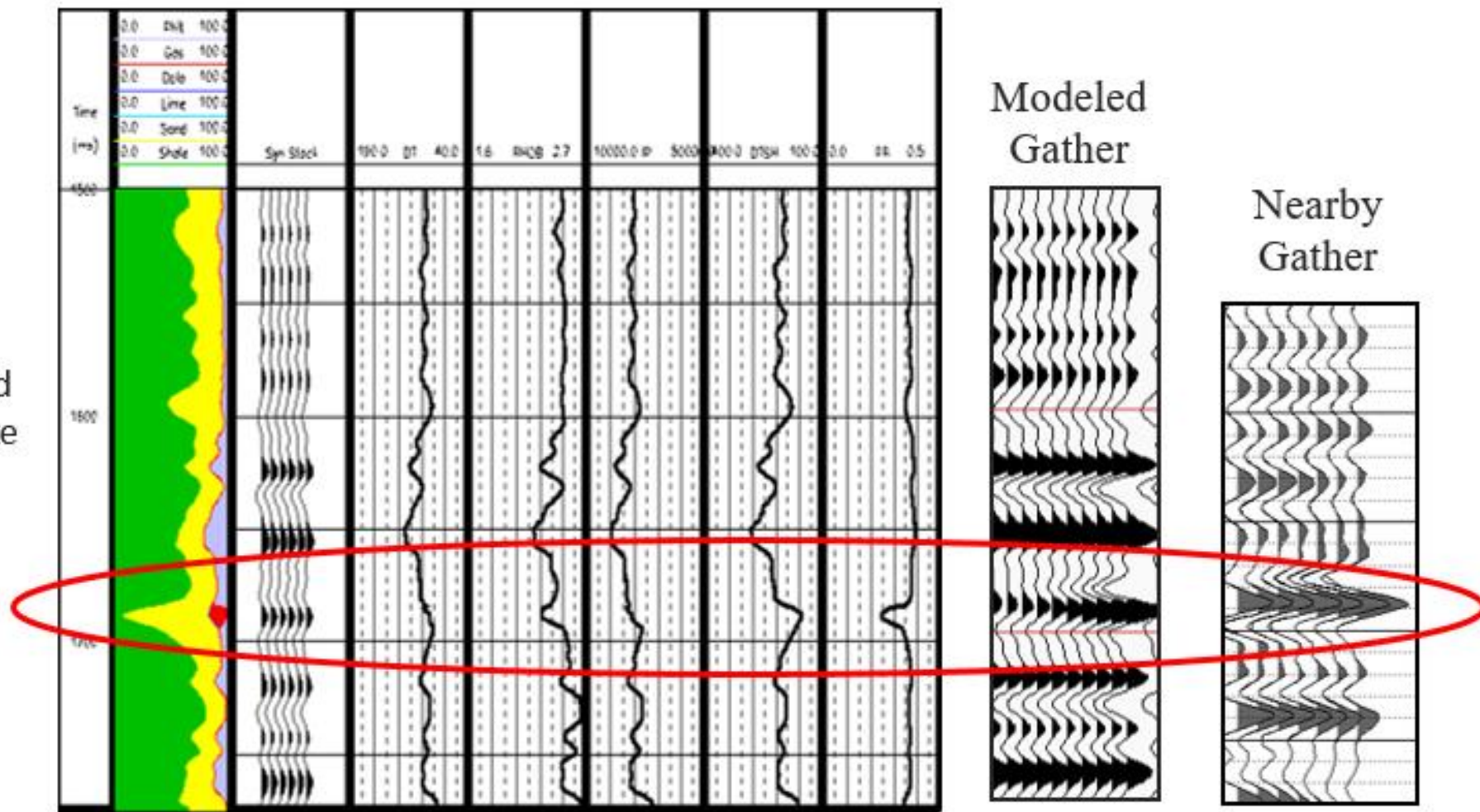
Bergschrund #1 Well, Alpine field discovery well Well Log Information **as Logged**





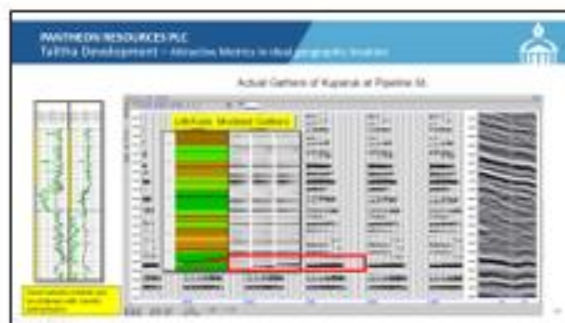
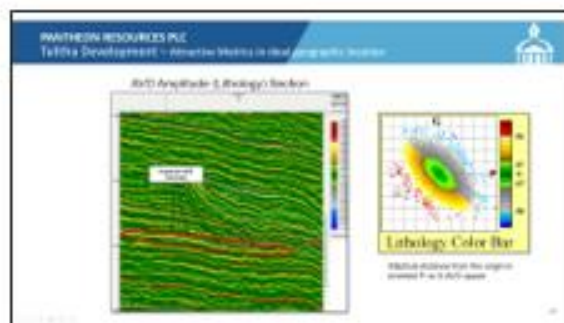
Bergschlund #1 Well, Alpine field discovery well Well Log Information **corrected**

Well logs are highly influenced by the near wellbore environment and must be corrected to make valid seismic models.

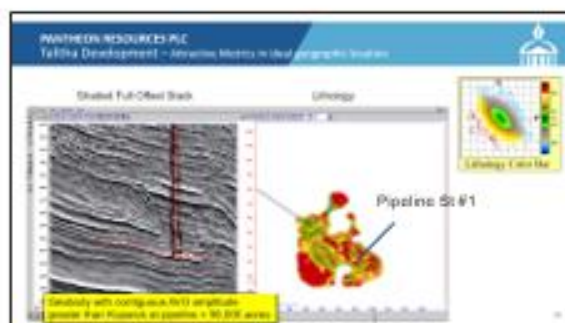
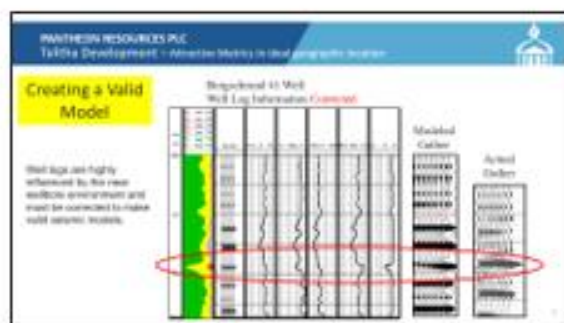




Technology created at Union Texas Petroleum aided the Alpine field discovery



This technology became the cornerstone of eSeis inc., a company specializing in seismic petrophysics and founded in the year 2000.



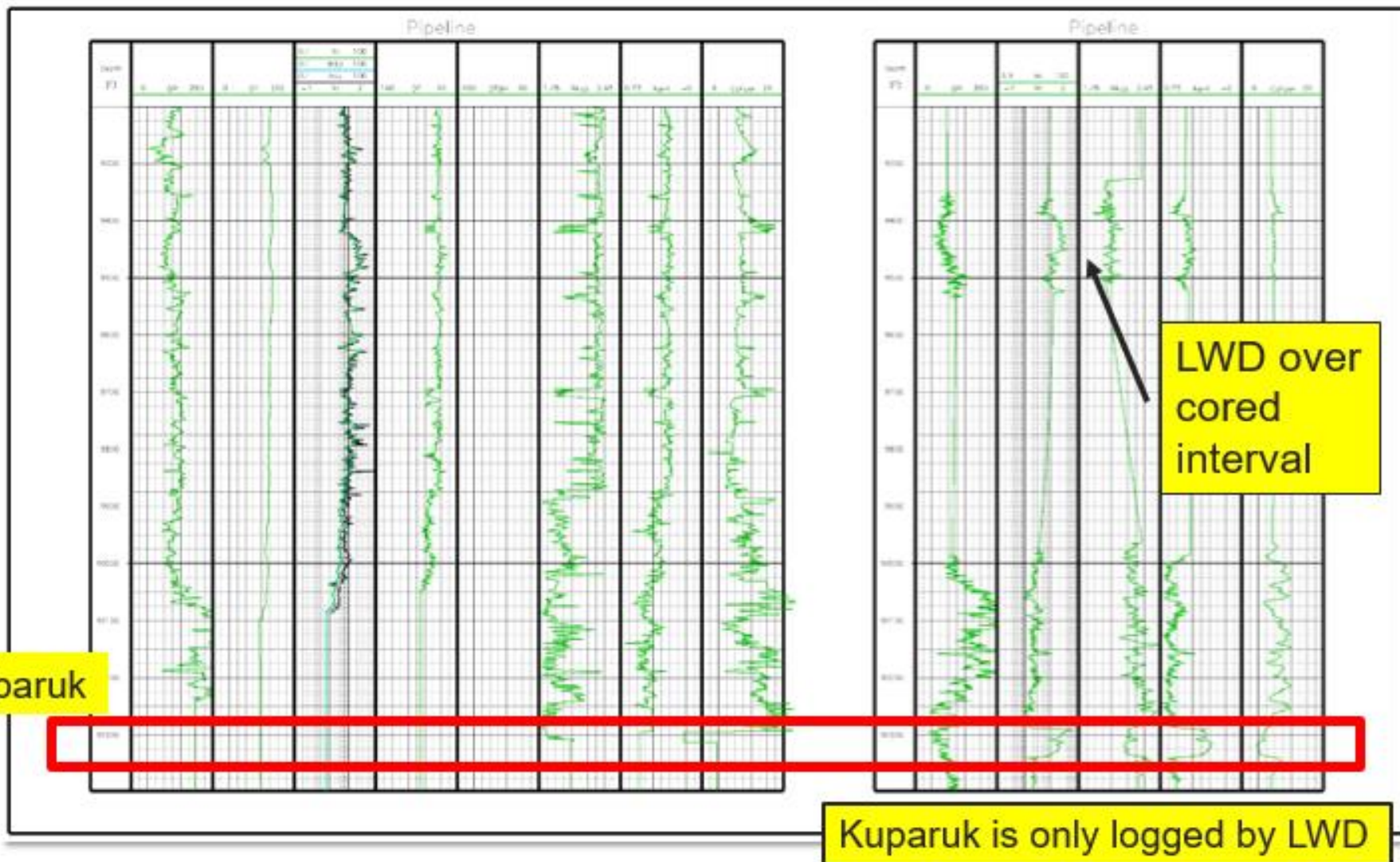
Talitha Petrophysical Review

Talitha Development: Pipeline State #1 Logs



Wireline

LWD

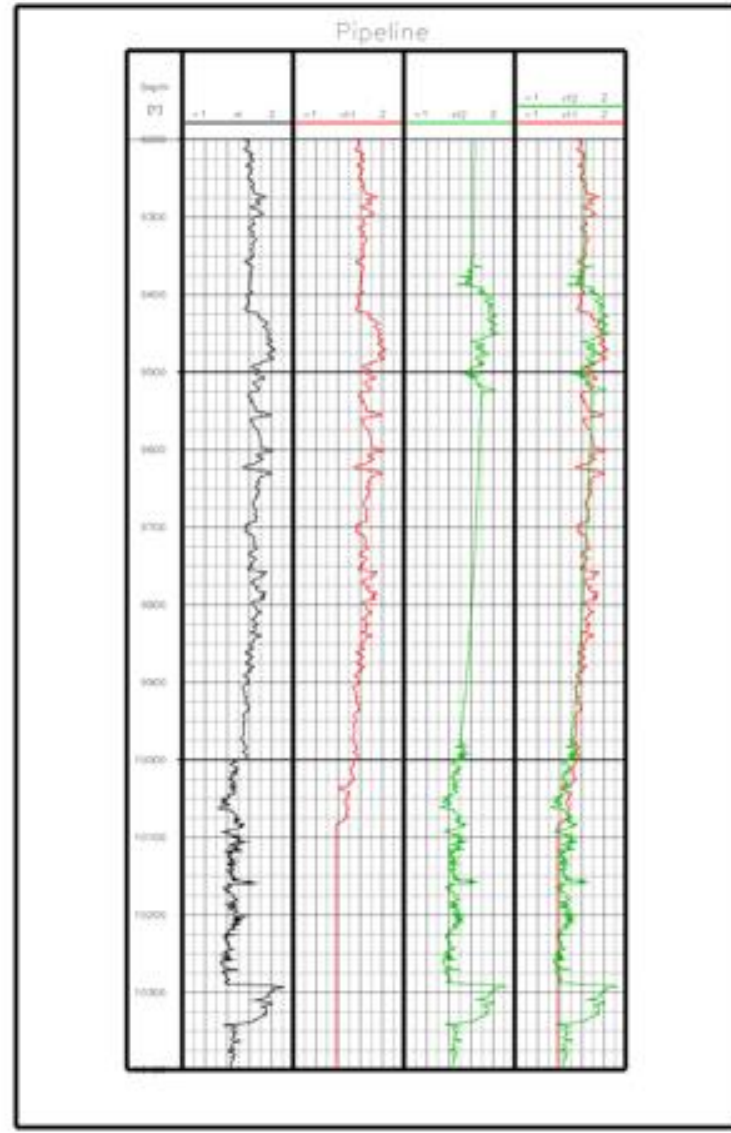


Talitha Petrophysical Review

Talitha Development: Resistivity Comparison - Wireline vs LWD



Res Comparison
Res Wireline
Res LWD



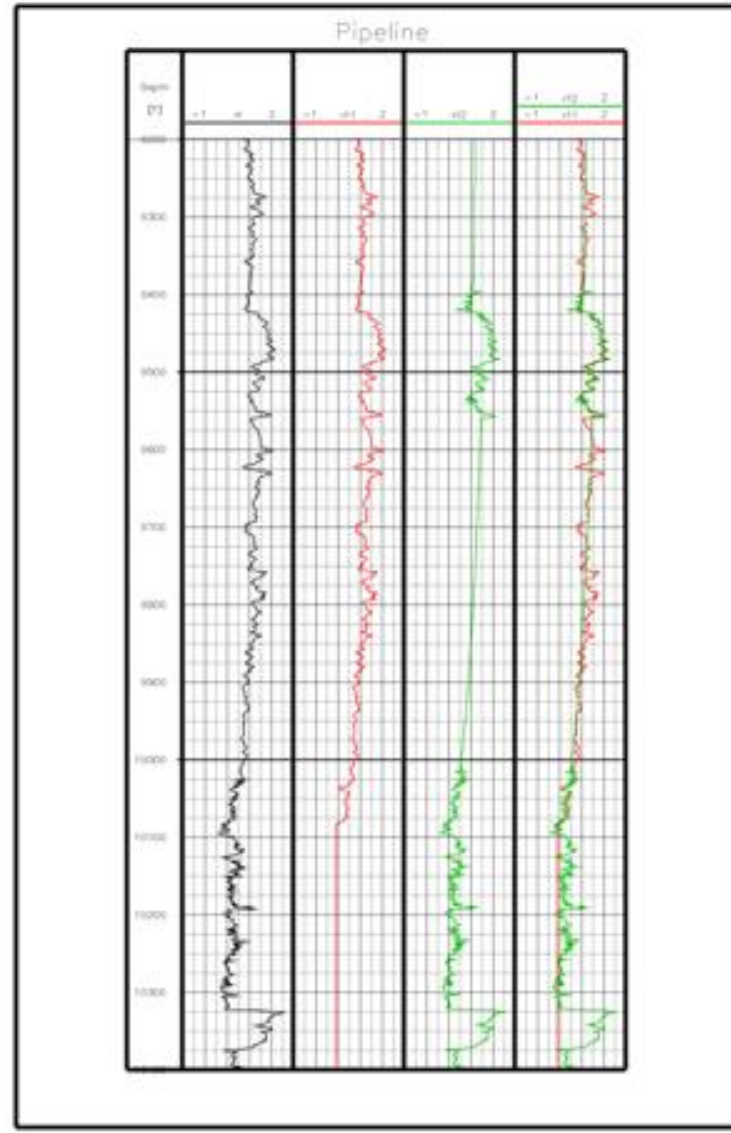
Talitha Petrophysical Review

Talitha Development: LWD Shifted Down by 33 Feet



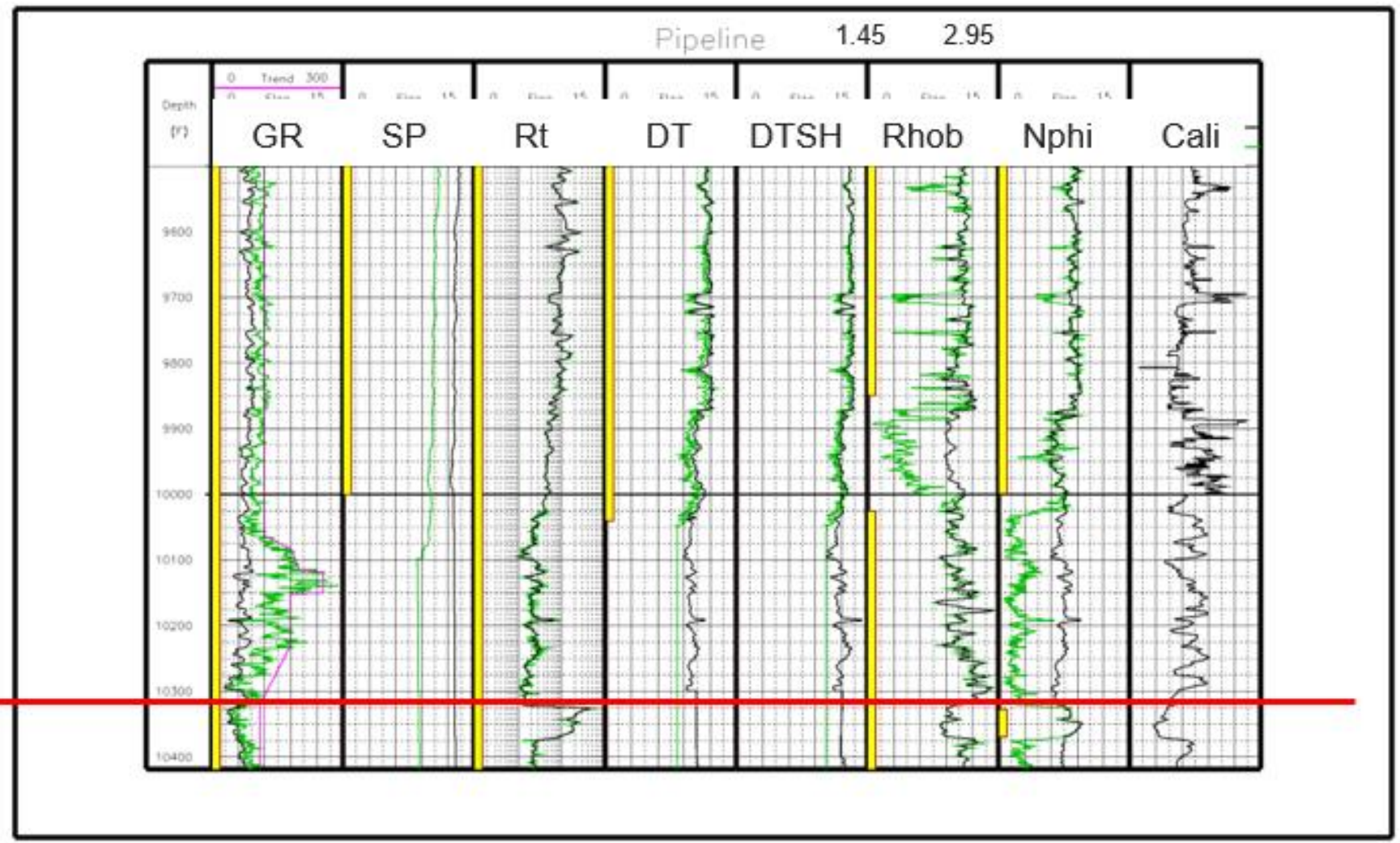
Res Comparison
Res Wireline
Res LWD

MWD shifted down by 33'
To match wireline



Yellow flags
indicated
logs are real

Top Kupa



Pipeline State #1 Log Analysis



Input Logs ---

Forward Modeled Logs ---

Decker D

K10

Shelf Margin Deltaic

Slope Fan System

Basin Floor Fan

Kuparuk

Lith/Fluids

Water/Oil

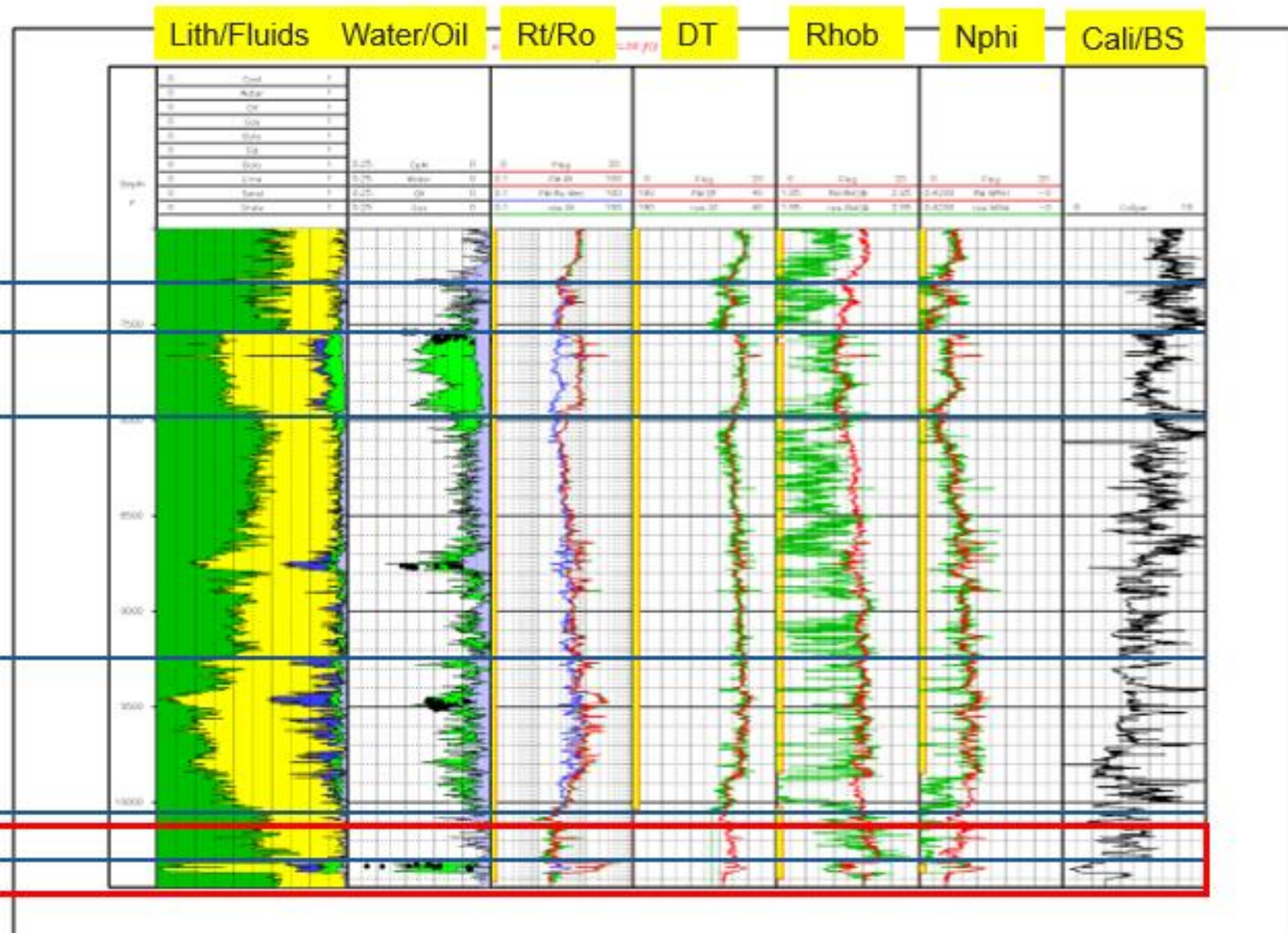
Rt/Ro

DT

Rhob

Nphi

Cali/BS



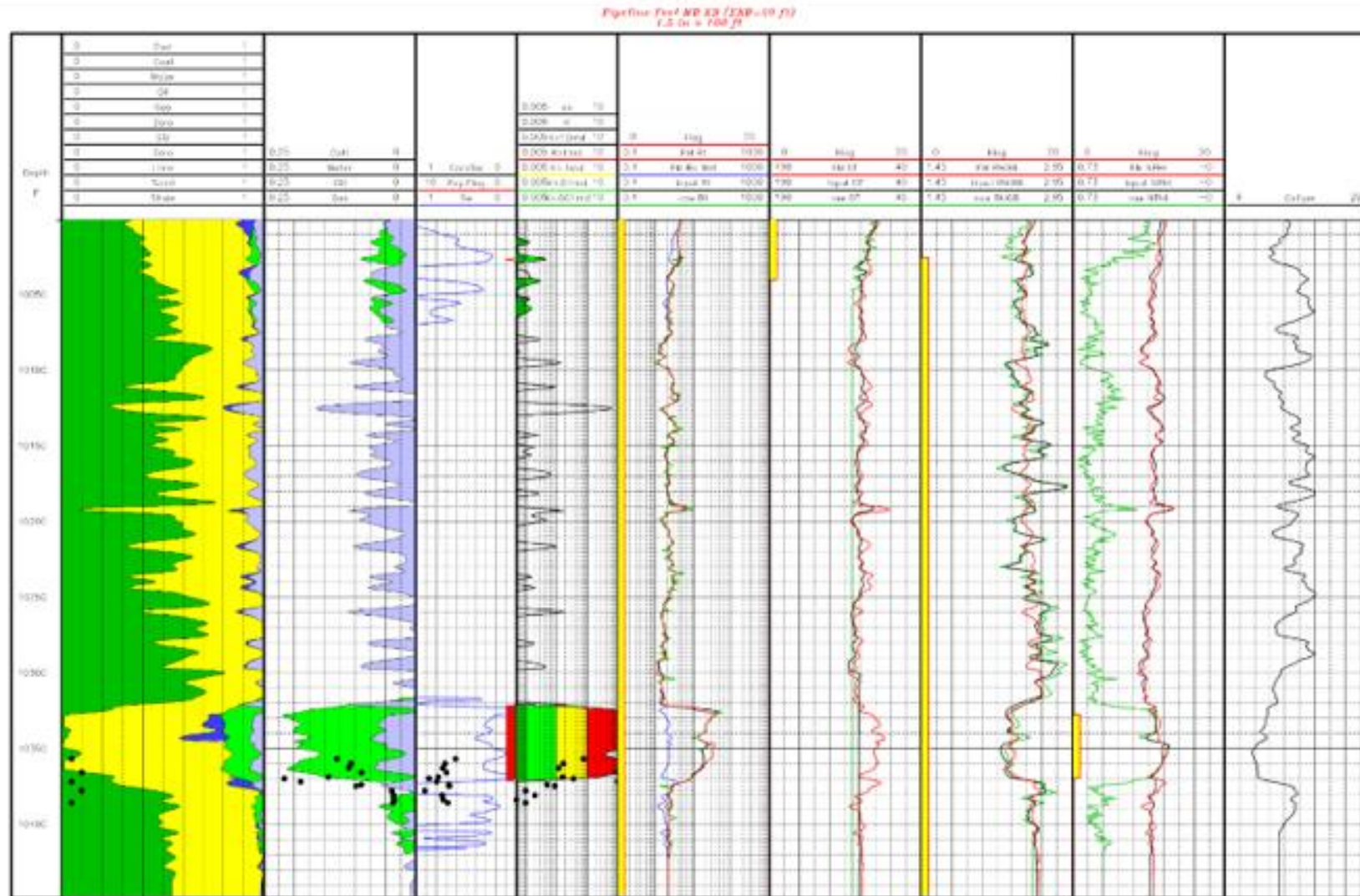
Talitha Petrophysical Review

Talitha Kuparuk Development: Log Analysis



Core # 4

Kuparuk

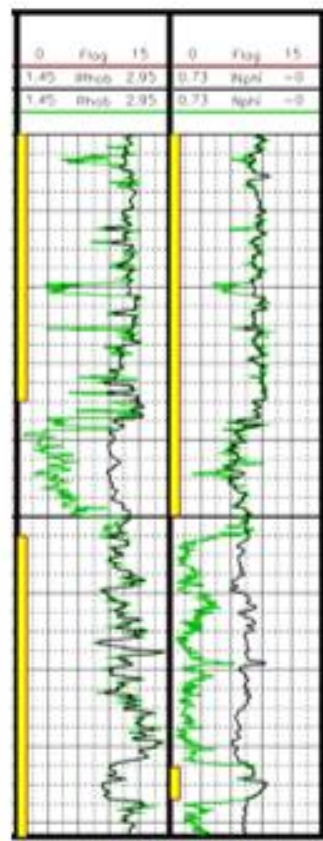


Talitha Petrophysical Review

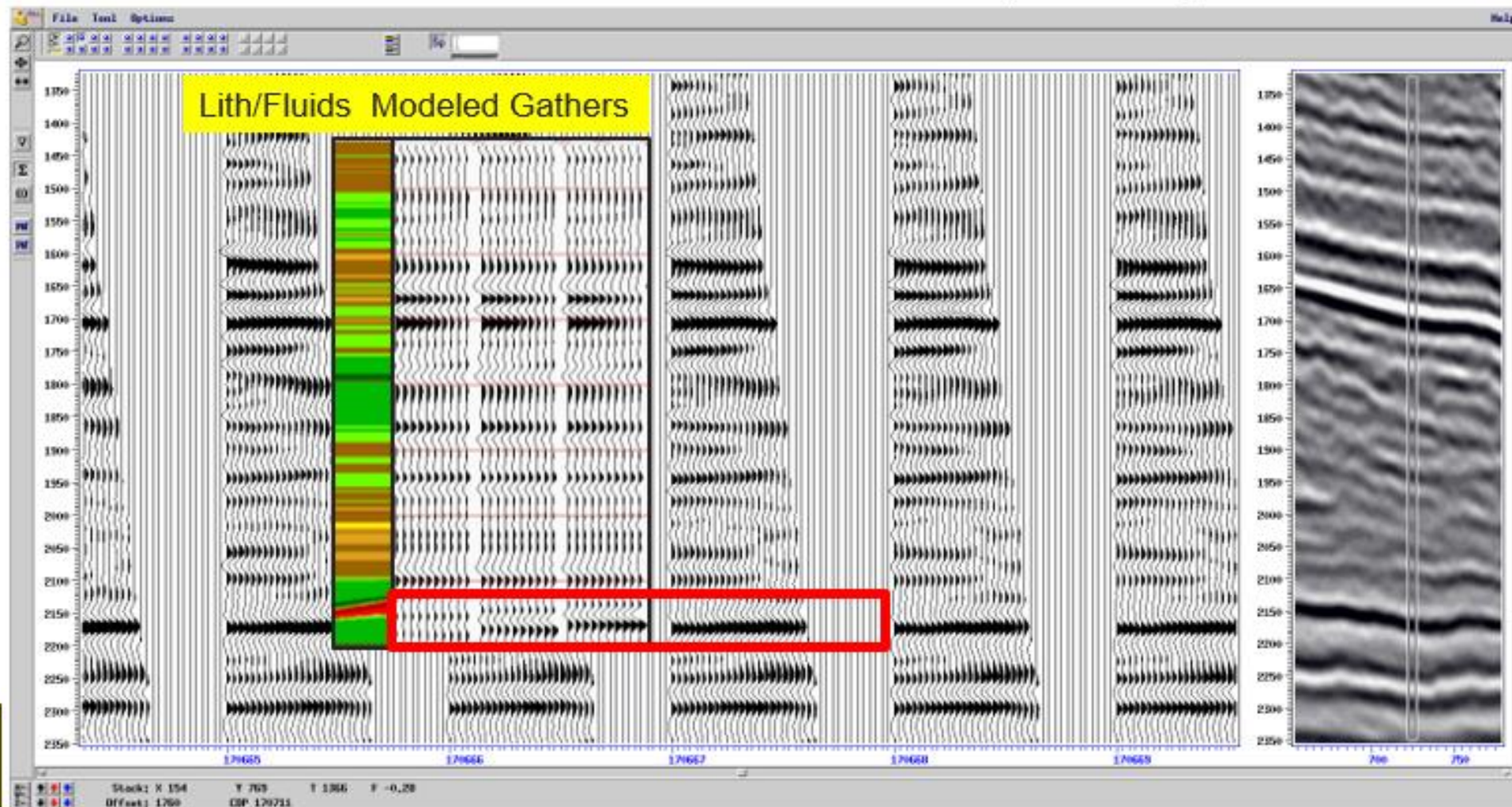
Talitha Kuparuk Development: Pipeline St. Actual vs Modeled Gathers



Actual Gathers of Kuparuk at Pipeline St.



Good seismic models can be obtained with careful petrophysics

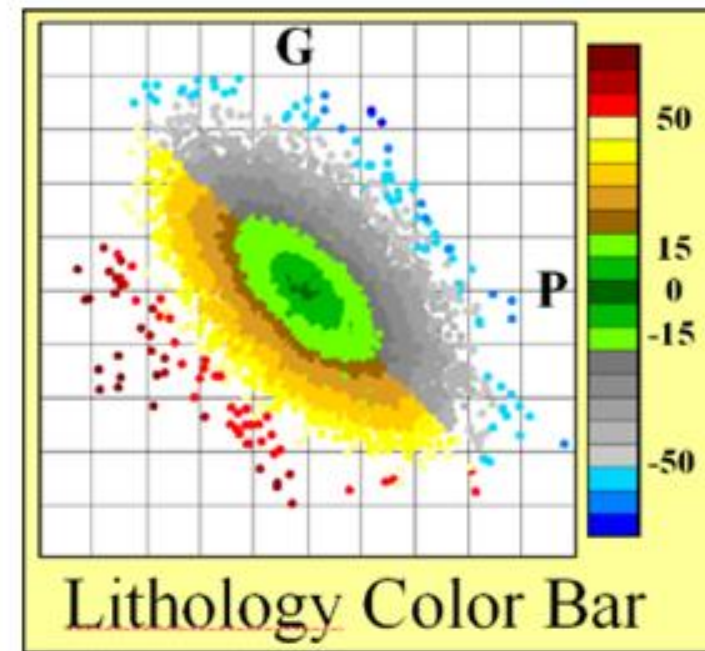
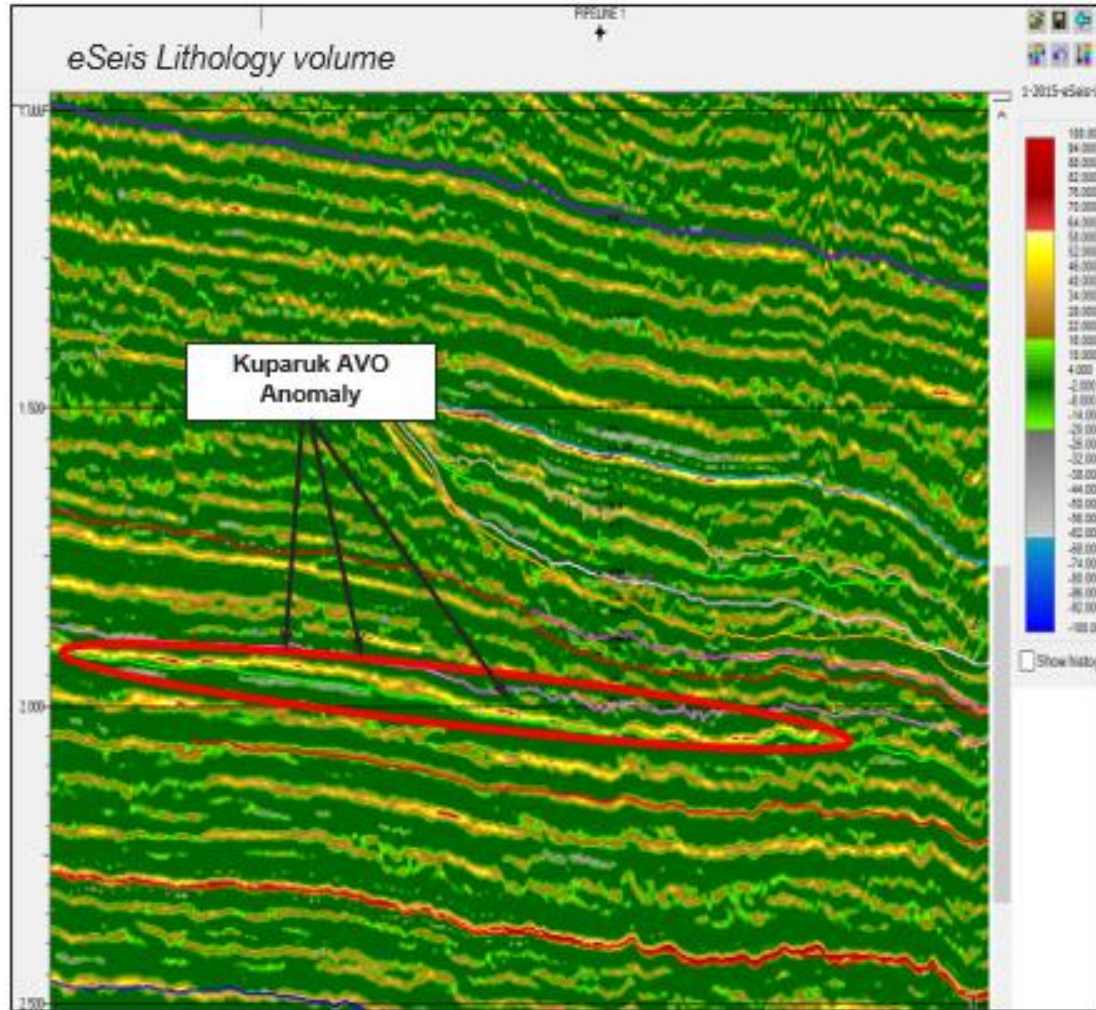


Talitha Petrophysical Review

Talitha Kuparuk Development: AVO Amplitude (Lithology) Section



AVO Amplitude (Lithology) Section



Elliptical distance from the origin in
inverted P vs G AVO space

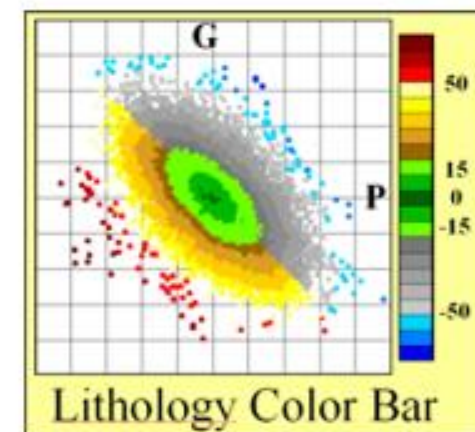
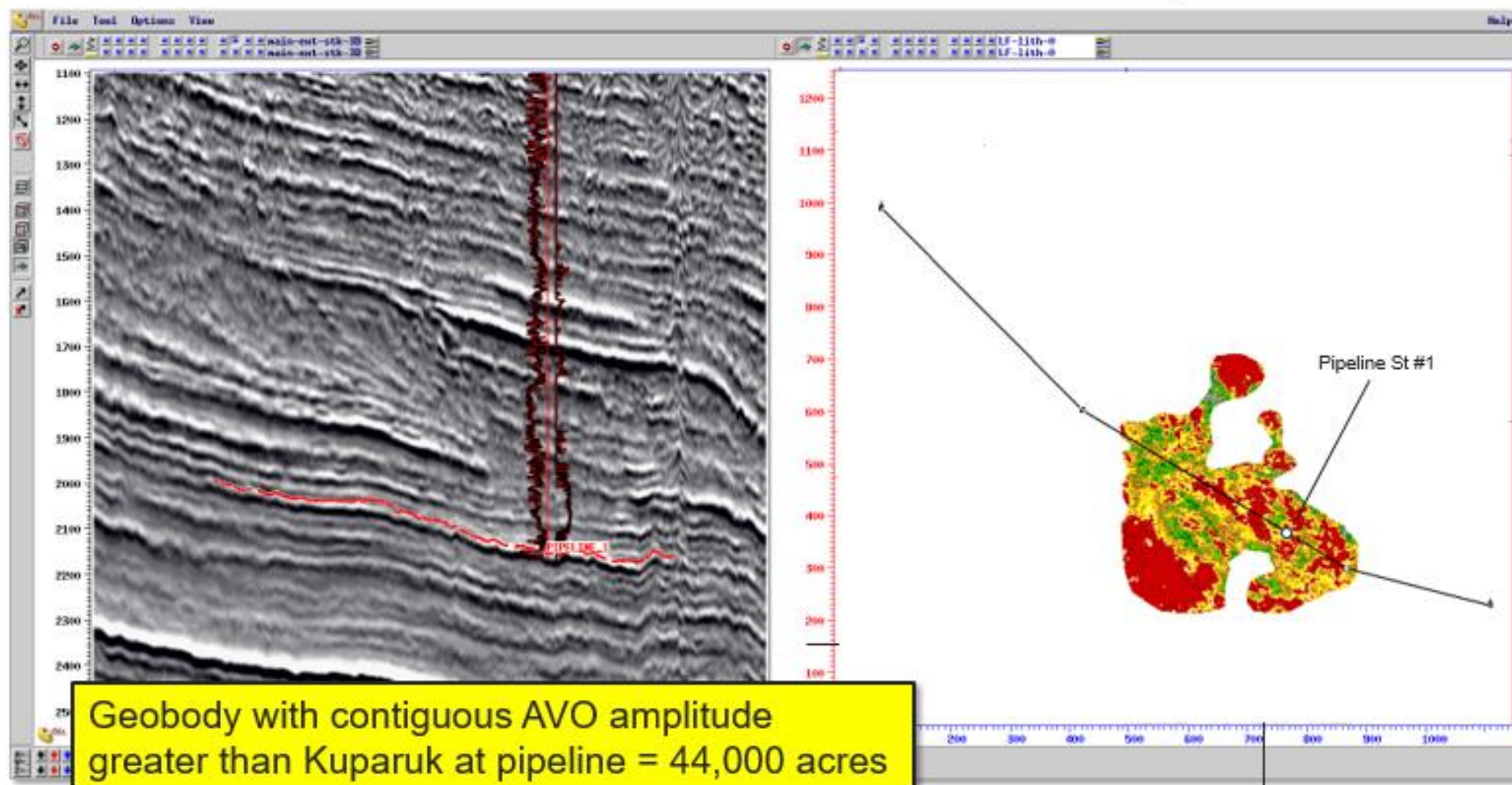
Talitha Petrophysical Review

Talitha Kuparuk Development: AVO Lithology Anomaly – Areal Extent



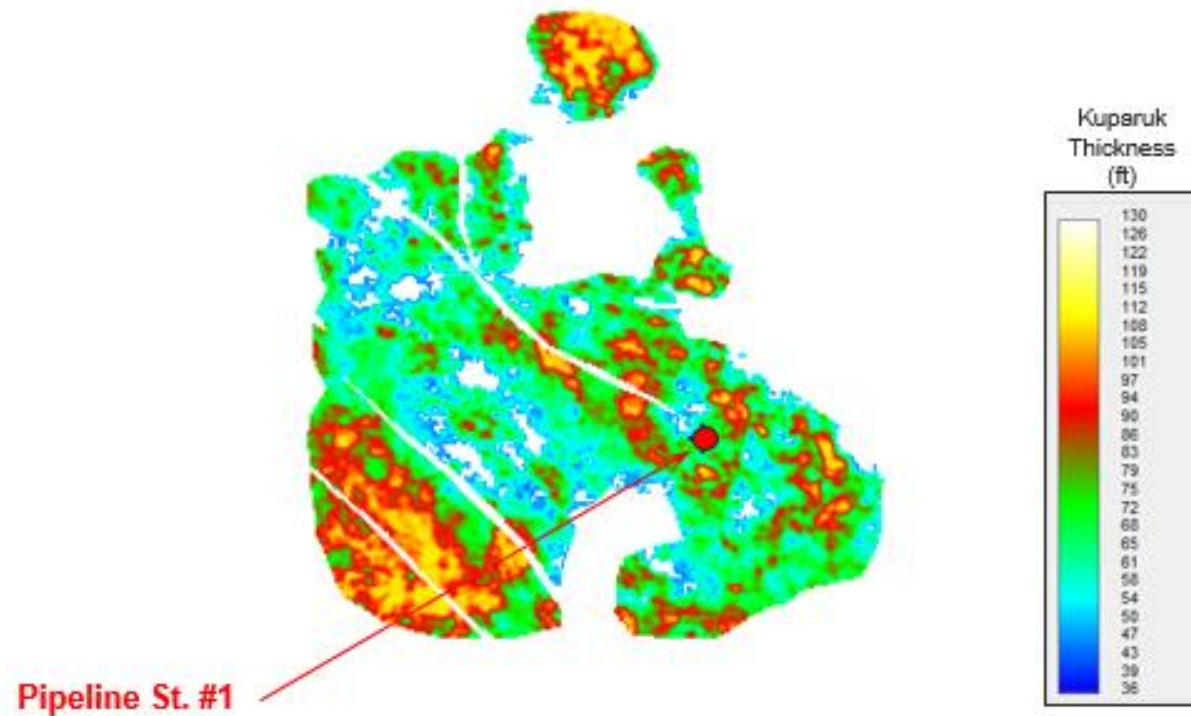
Shaded Full Offset Stack

Lithology



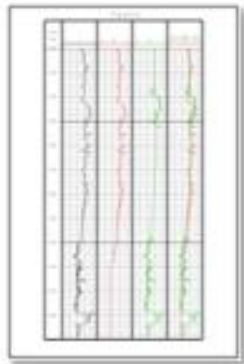


Kuparuk Continuous Reservoir Thickness
Greater than in Pipeline State #1

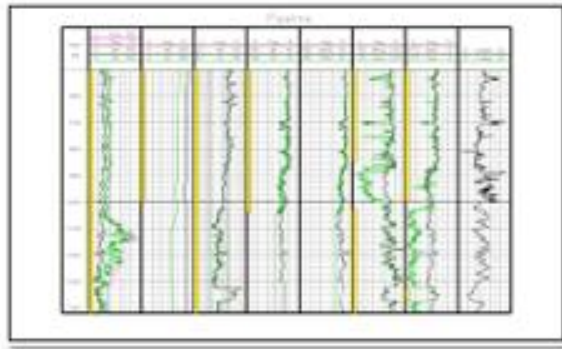


Talitha Petrophysical Review

Talitha Development: Kuparuk Seismic Petrophysical Summary



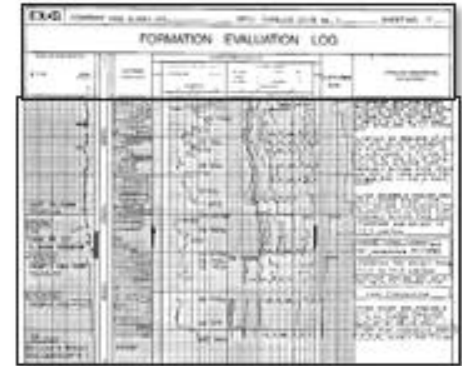
Logs off depth



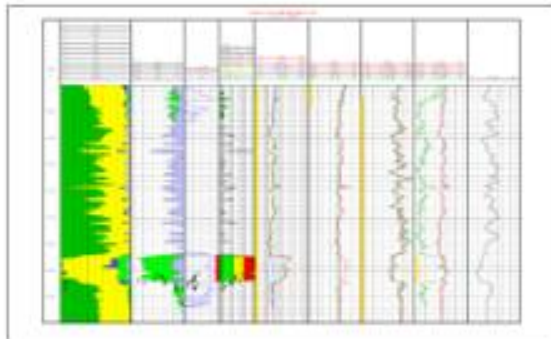
Logs in bad shape



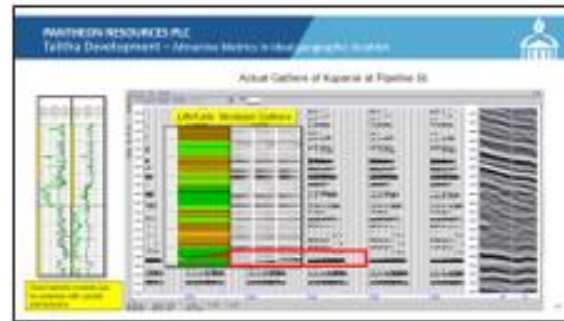
No siderite



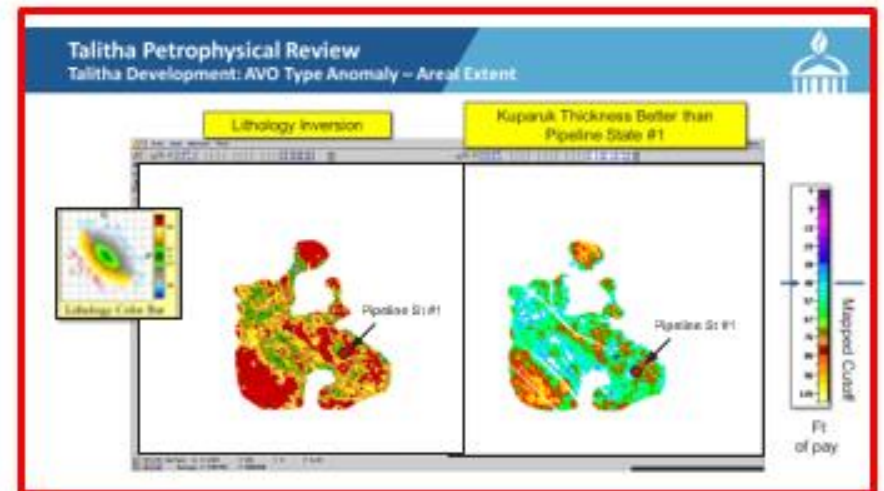
Oil in core and while drilling



Oil pay in log analysis



Classic AVO response like Alpine



Talitha Volumetrics

SMD and Kuparuk Deterministic Calculations



Talitha Unit Area: 44,453 acres

Kuparuk	PANR
OIP (BnBBLS)	1.372
Recoverable (BnBBLS)	0.343

Brookian Reservoirs

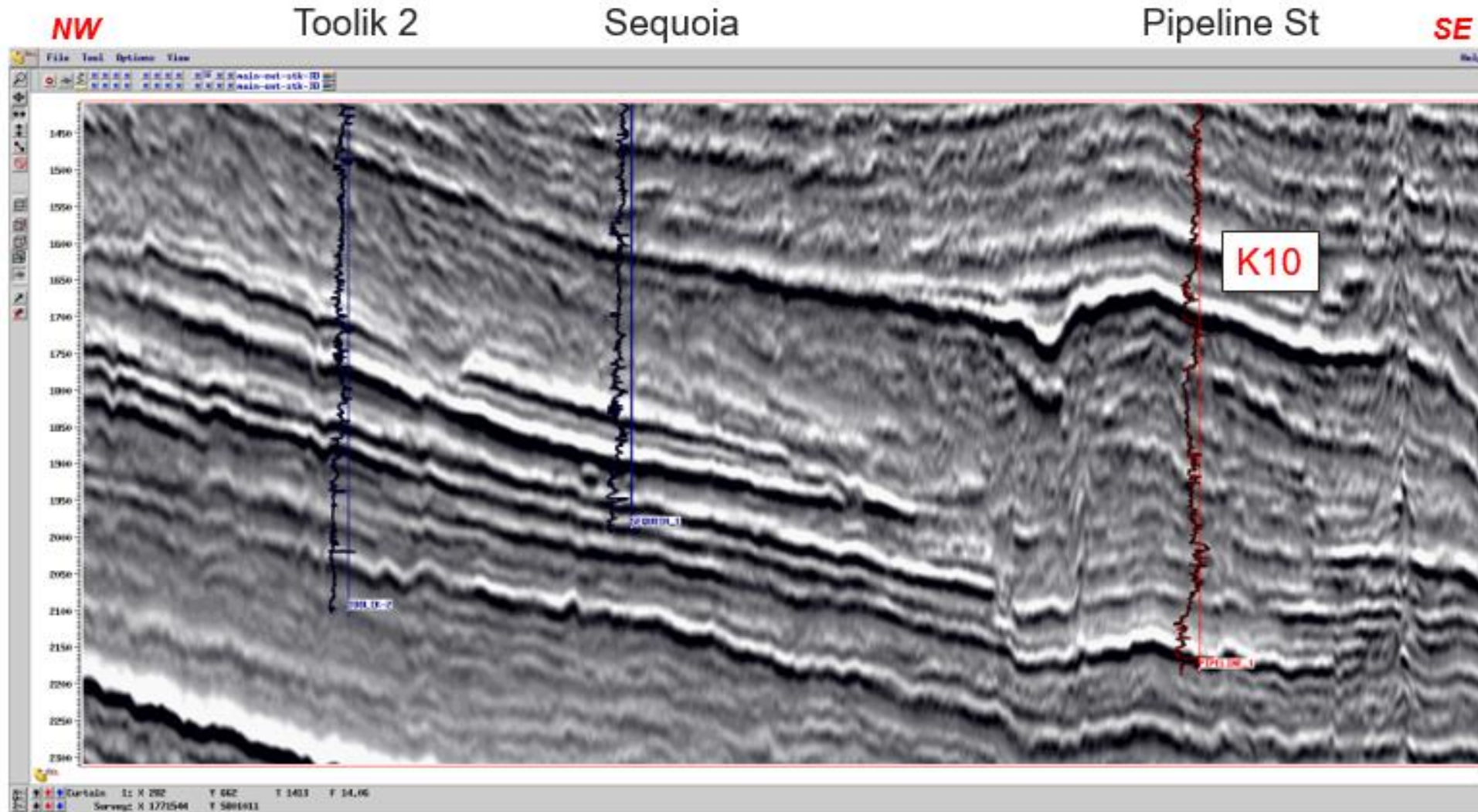


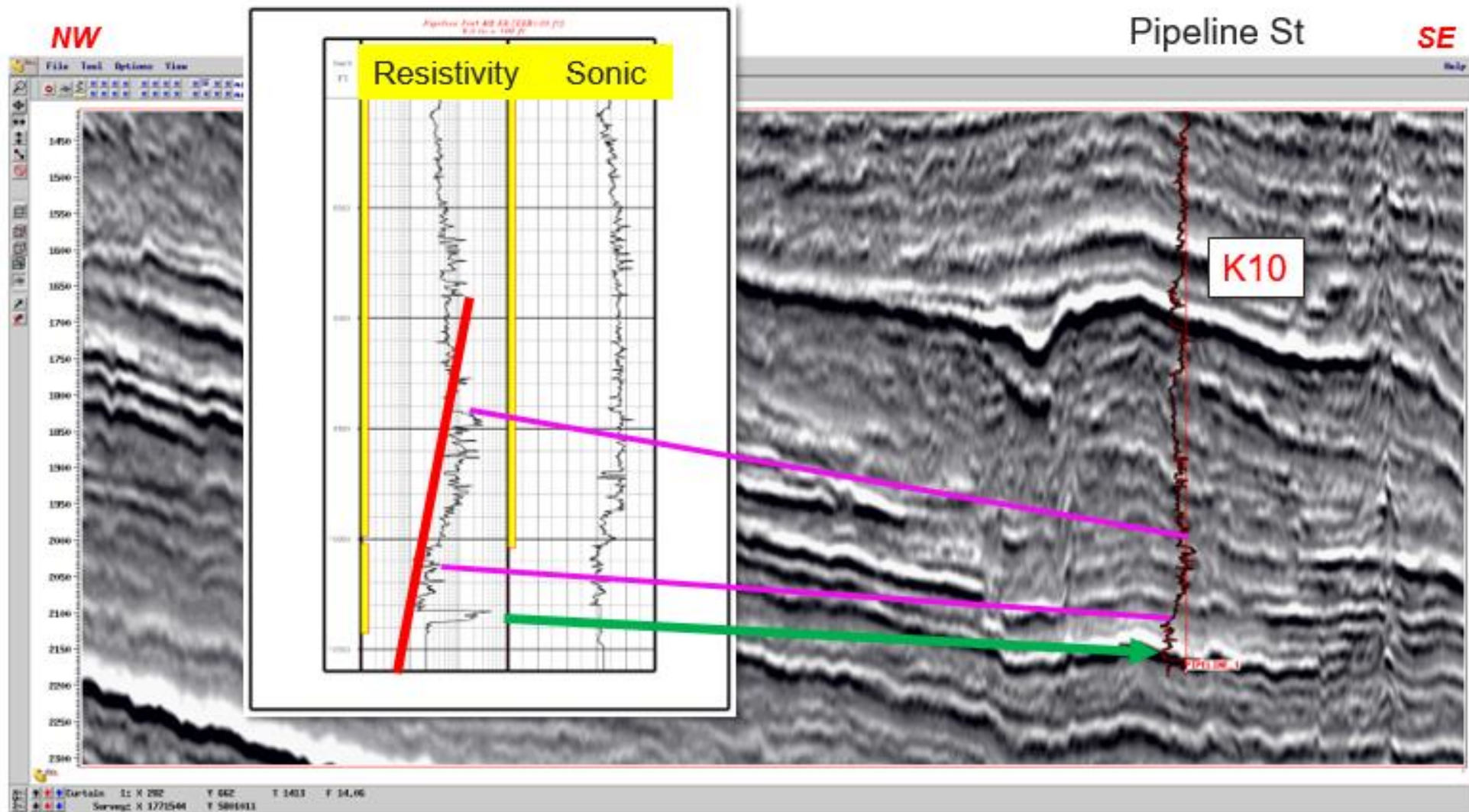
2000 ft
hydrocarbons



Brookian Petrophysical Review

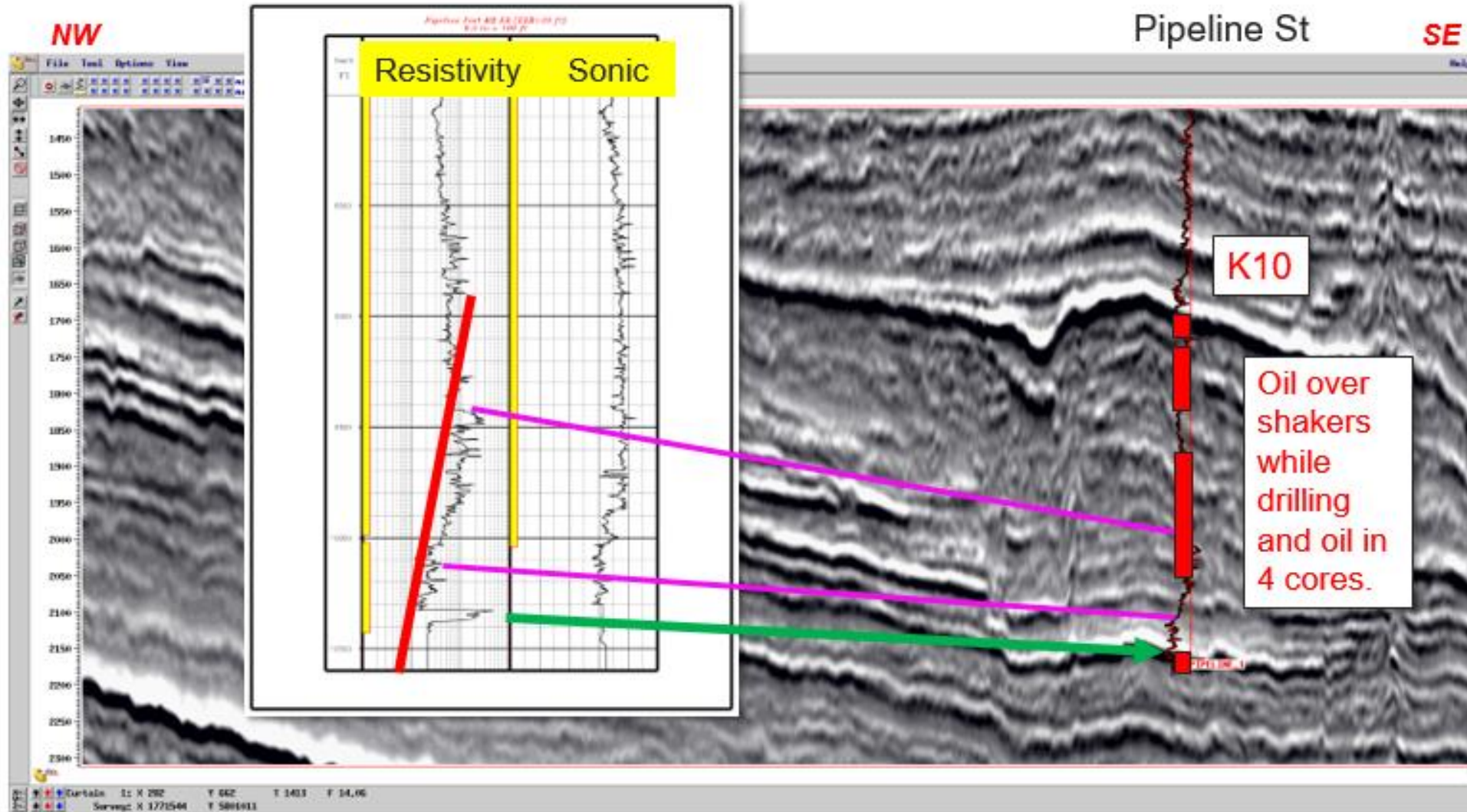
Talitha Development: Arb Line through Pipeline St. #1





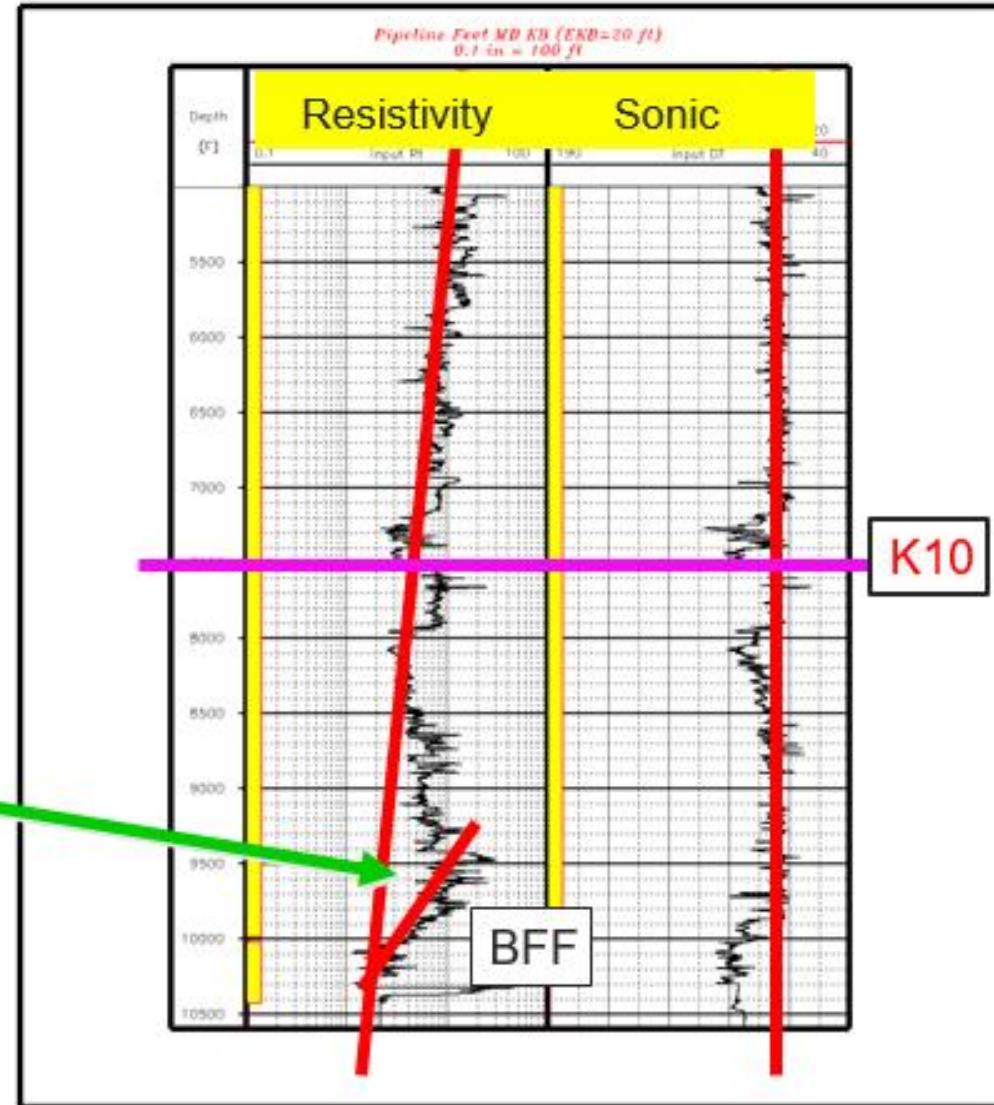
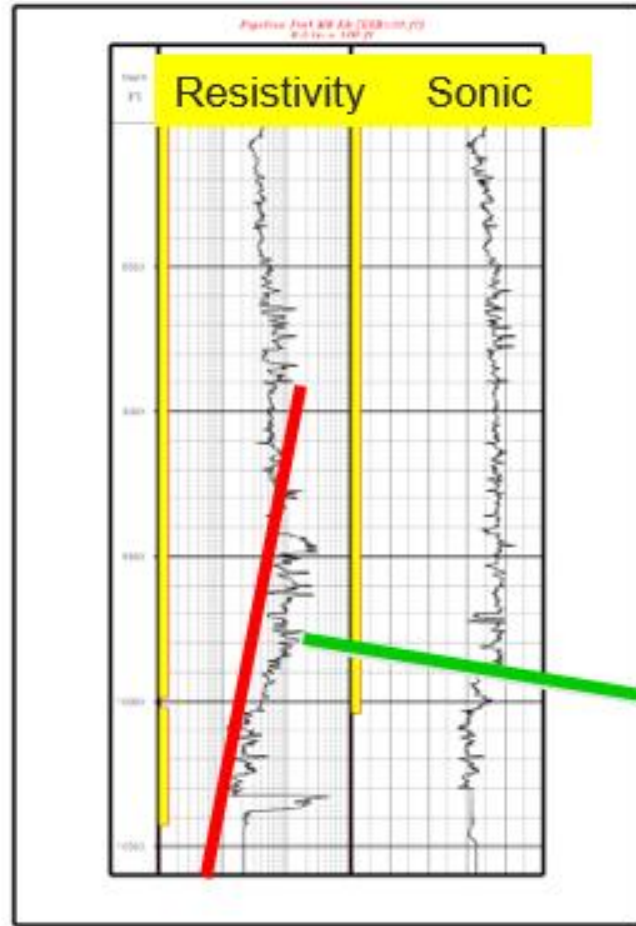
Brookian Petrophysical Review

Talitha Development: First Pass Interpretation Tie to Seismic

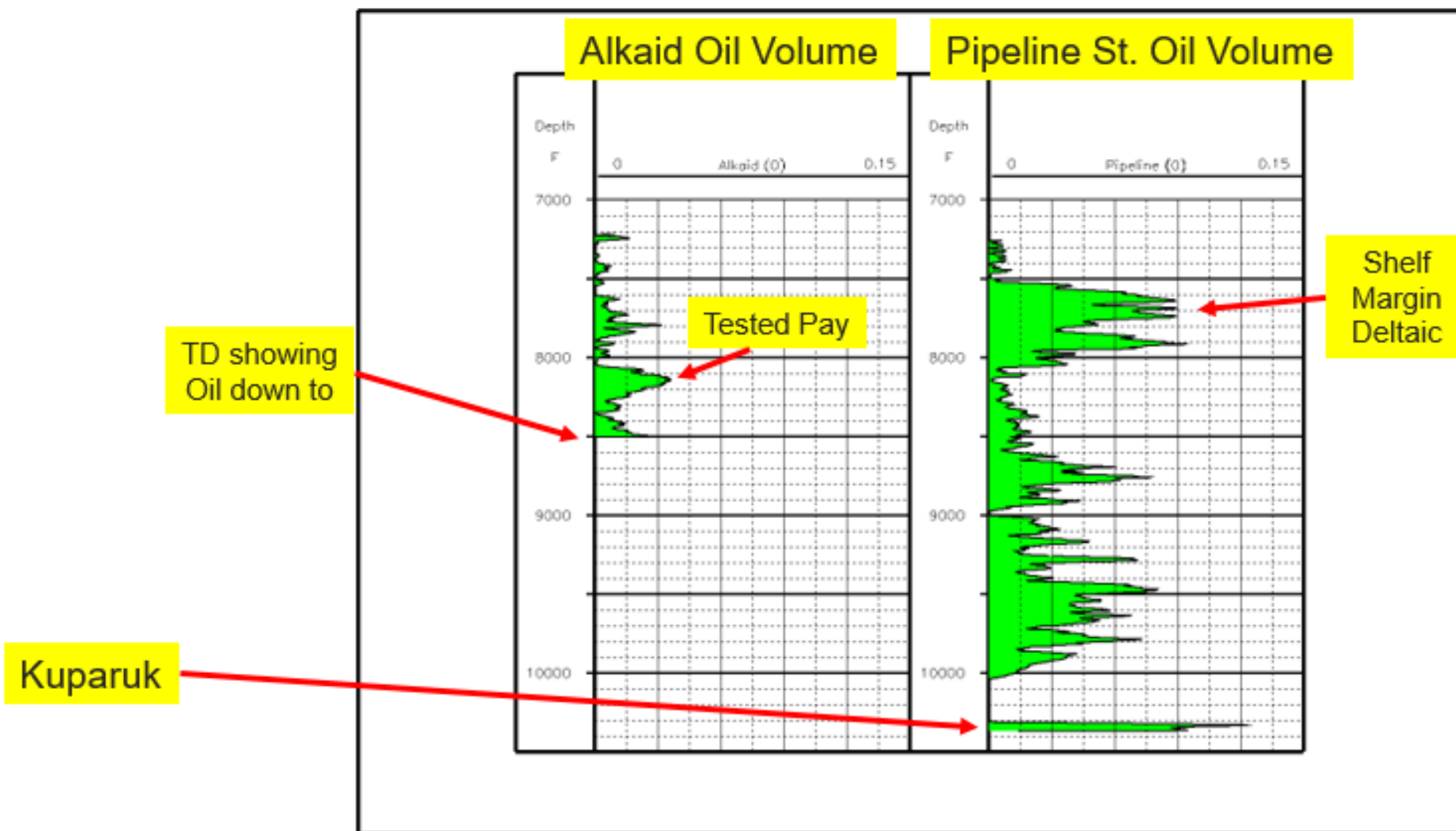


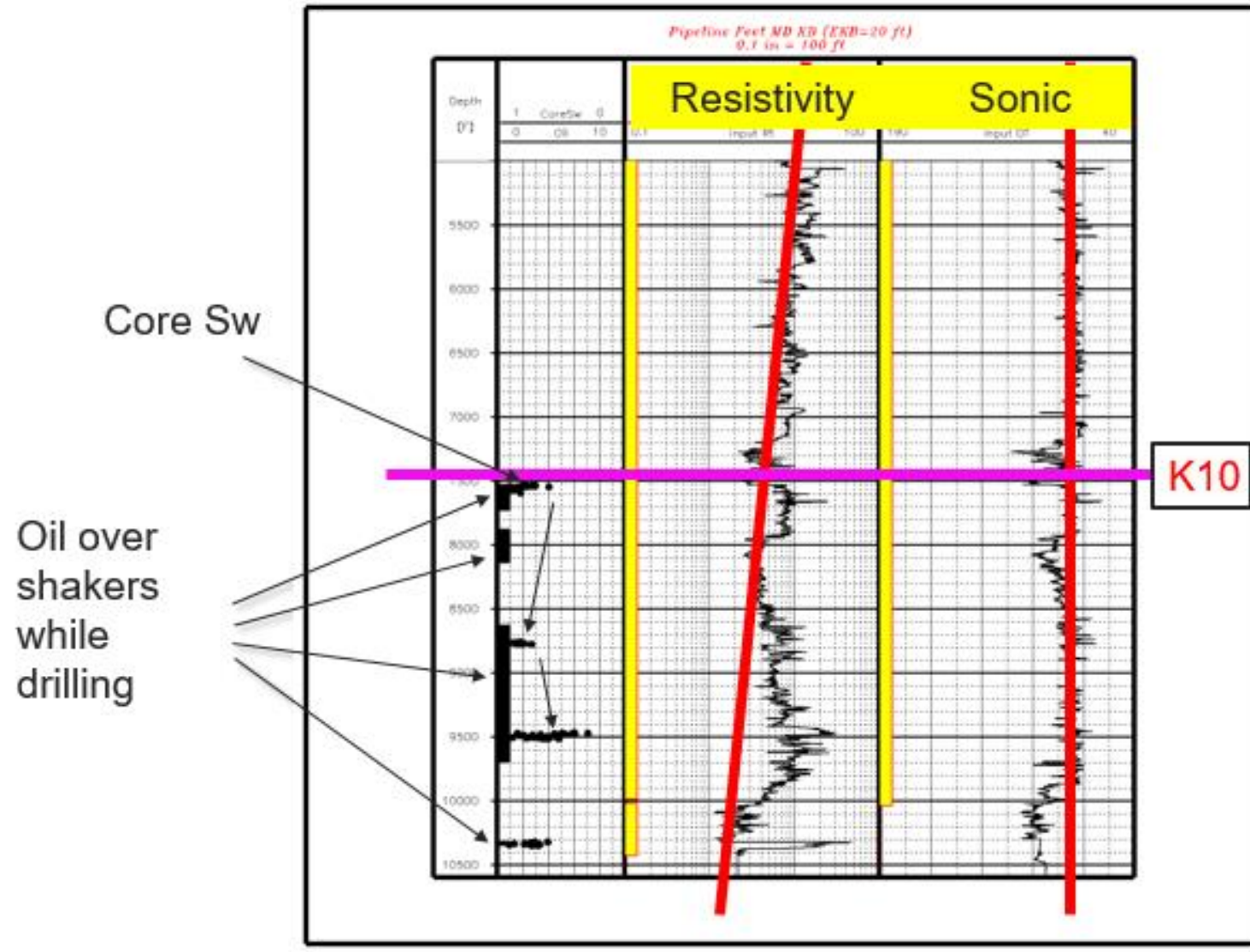
Brookian Petrophysical Review

Talitha Development

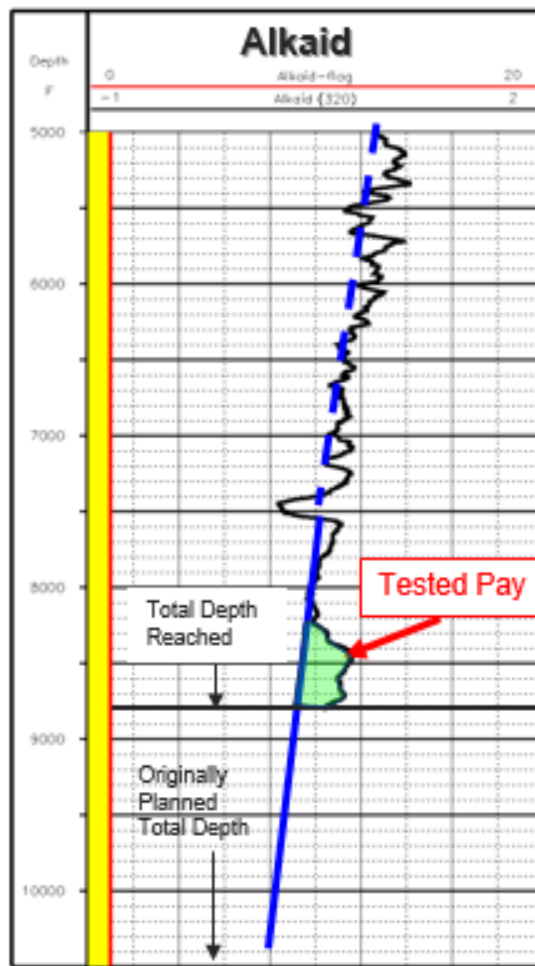


Pipeline State vs Alkaid OIL VOLUME





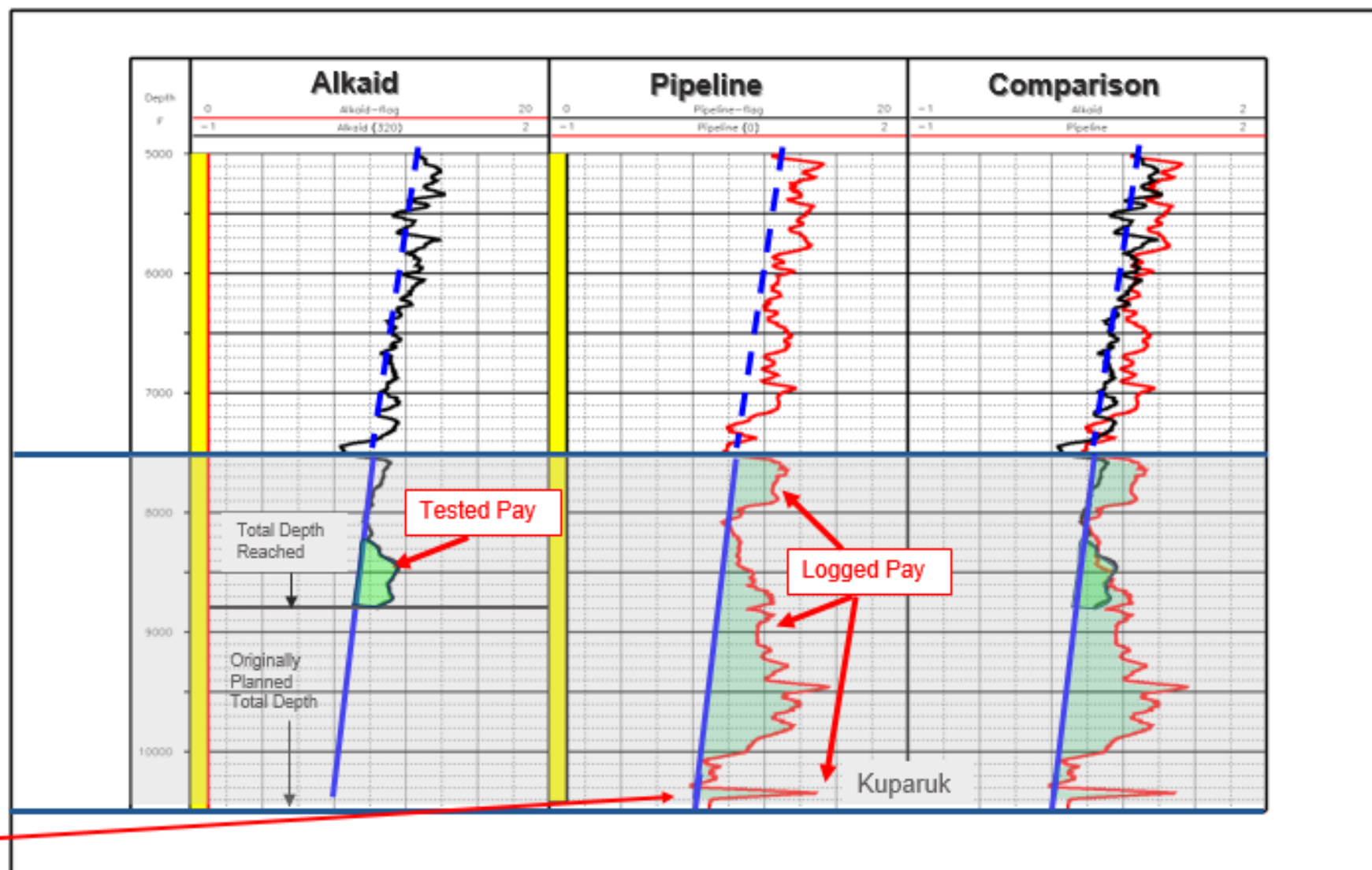
Pipeline State vs Alkaid Resistivity



Pipeline State vs Alkaid Resistivity



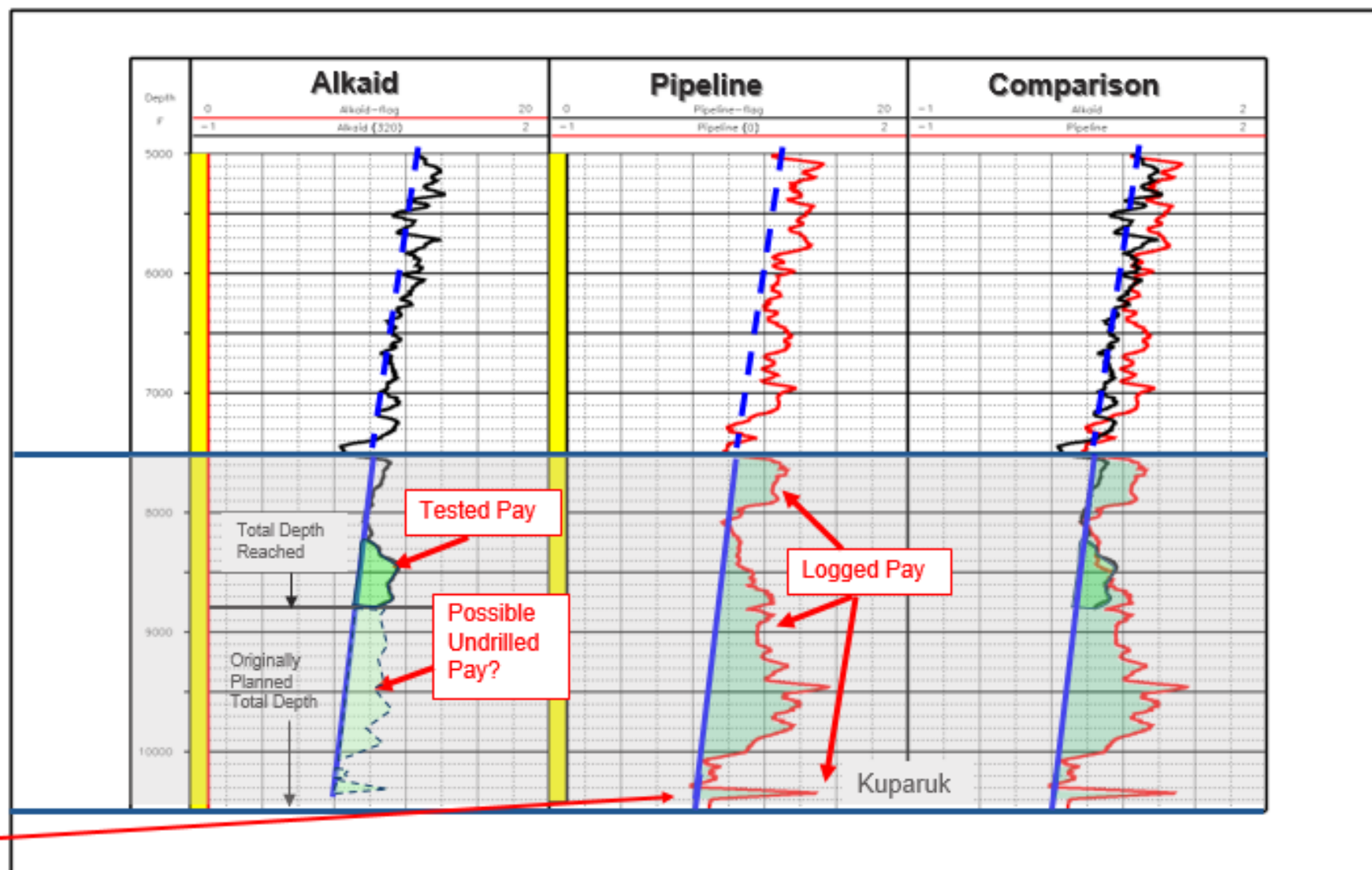
Logs hung on K10



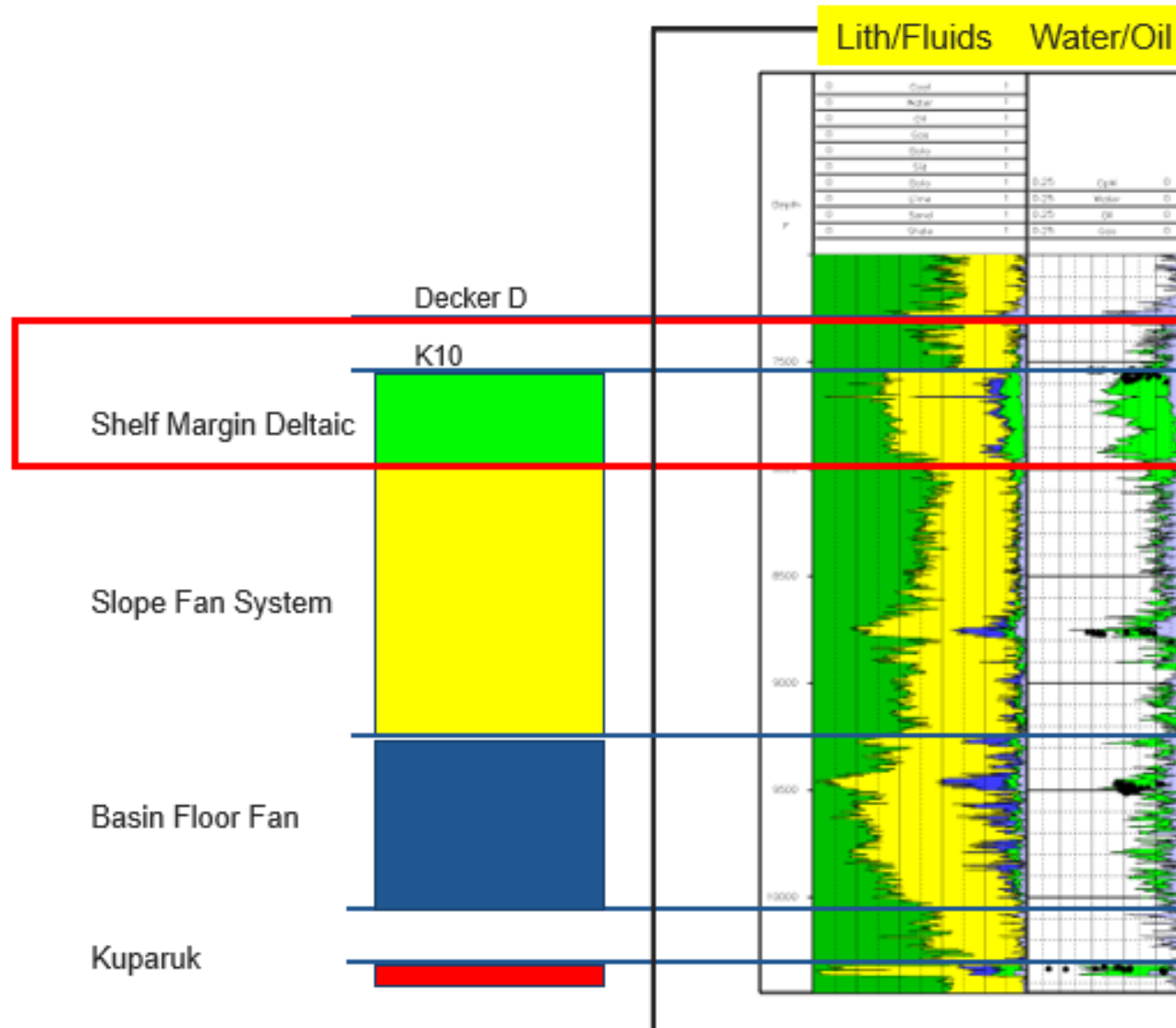
Pipeline State vs Alkaid Resistivity



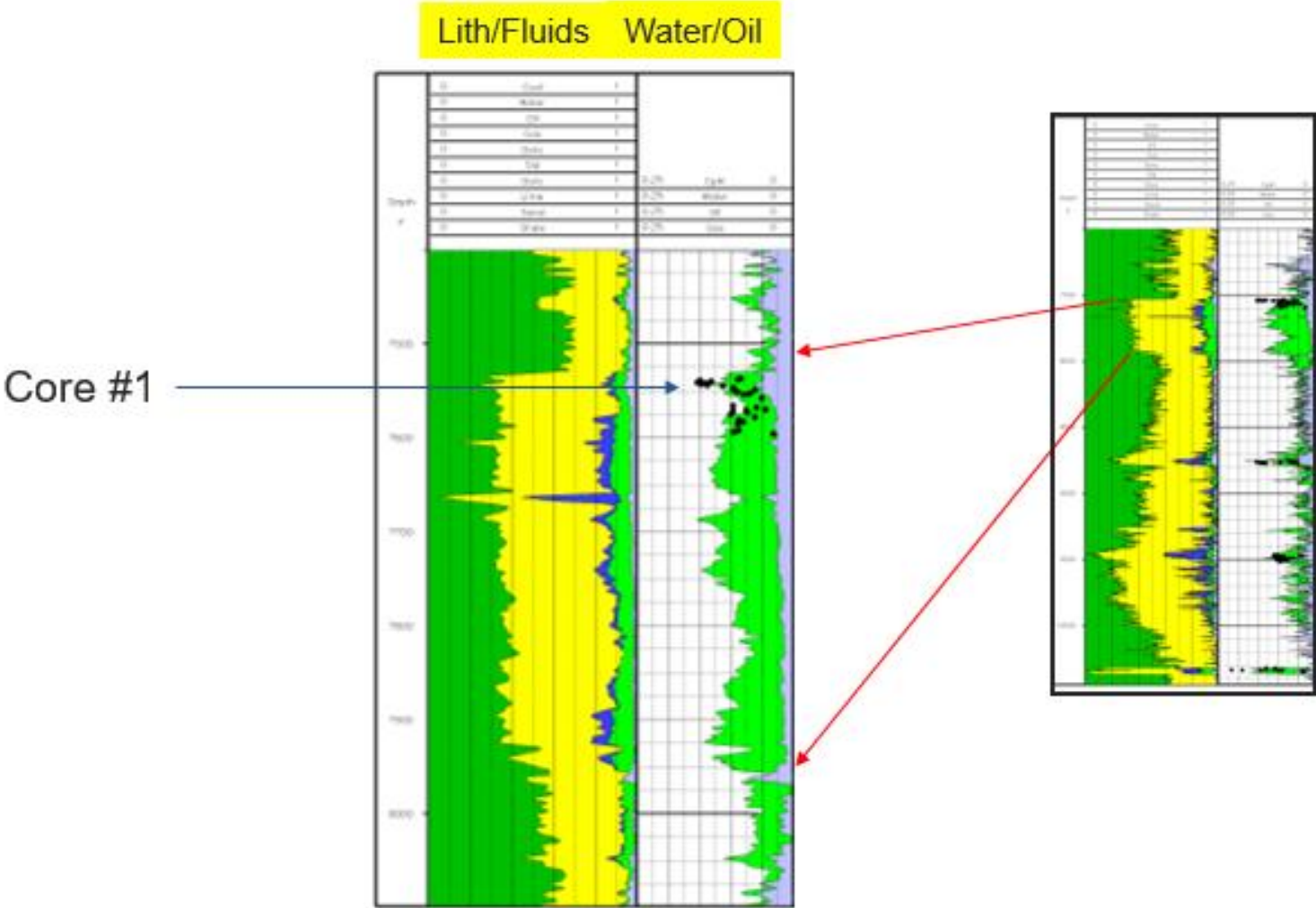
Logs hung on K10



Pipeline State #1 Log Analysis



Pipeline State #1 Log Analysis
Shelf Margin Deltaic

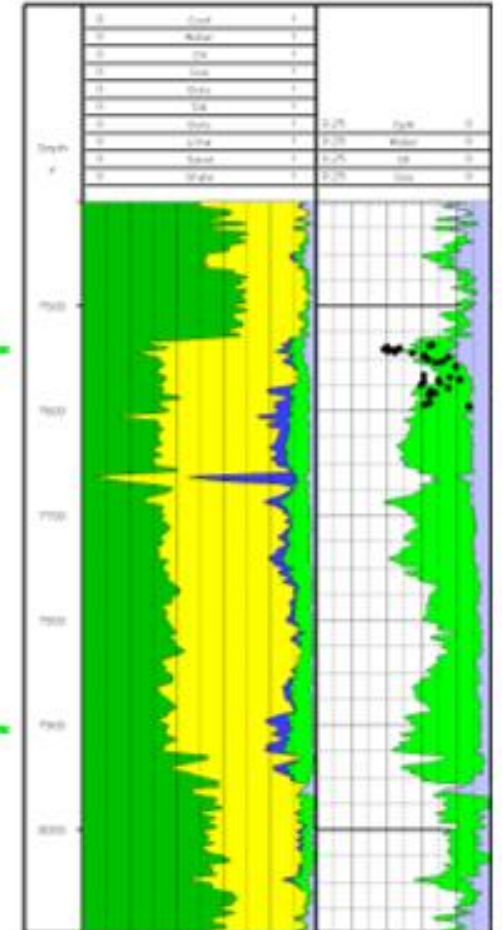
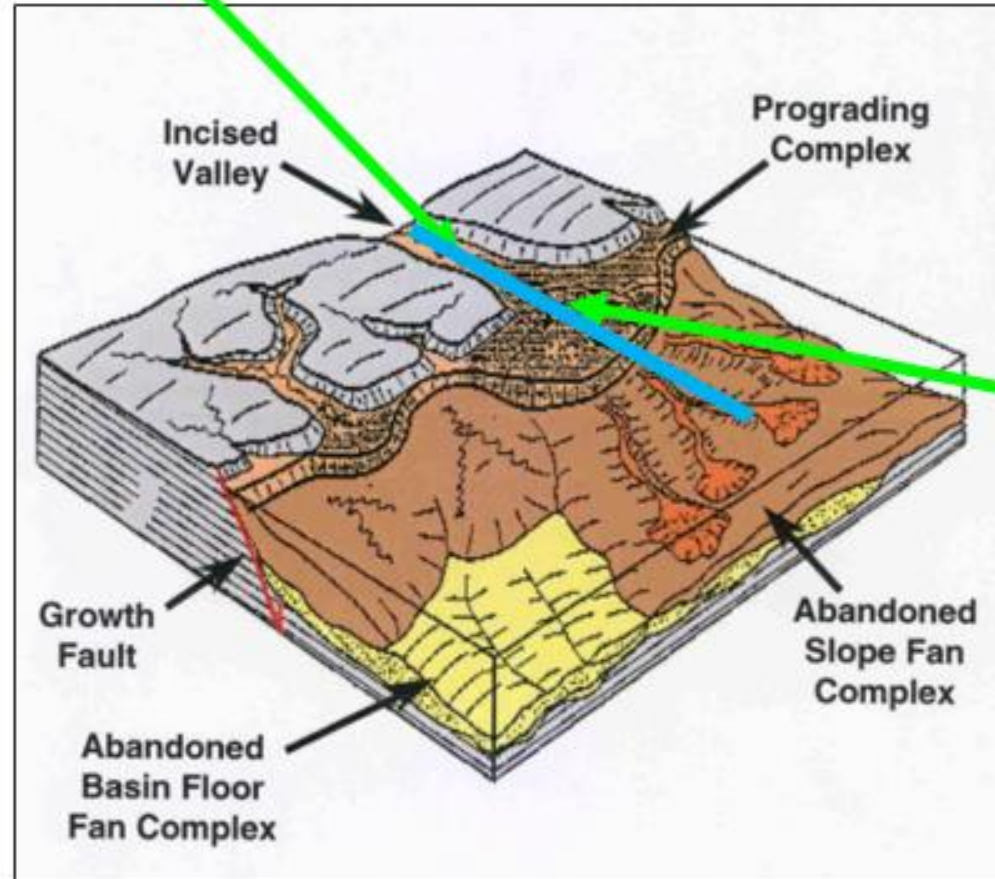


Shelf Margin Deltaics Trap Definition



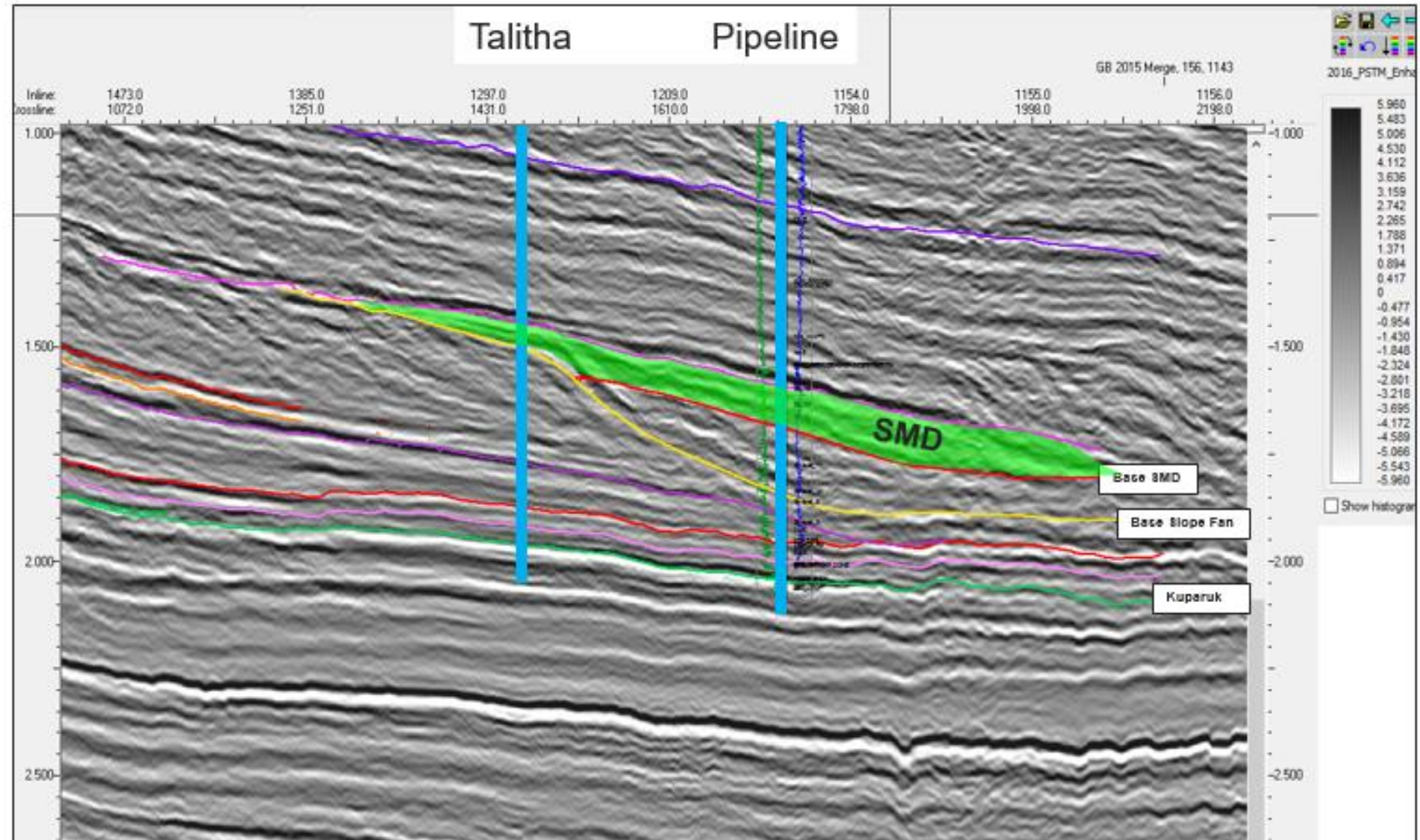
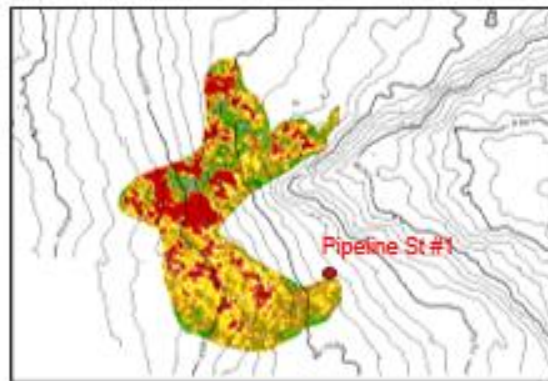
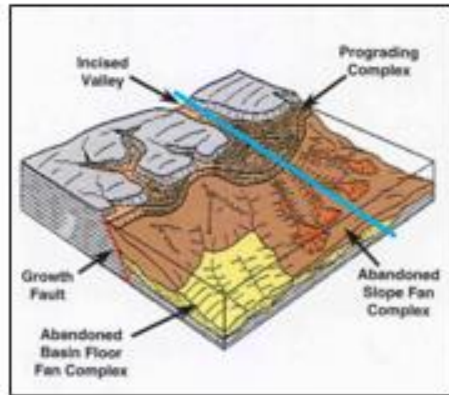
Talitha

Pipeline State



Shelf Margin Deltaics Trap Definition

Prestack Time Migration



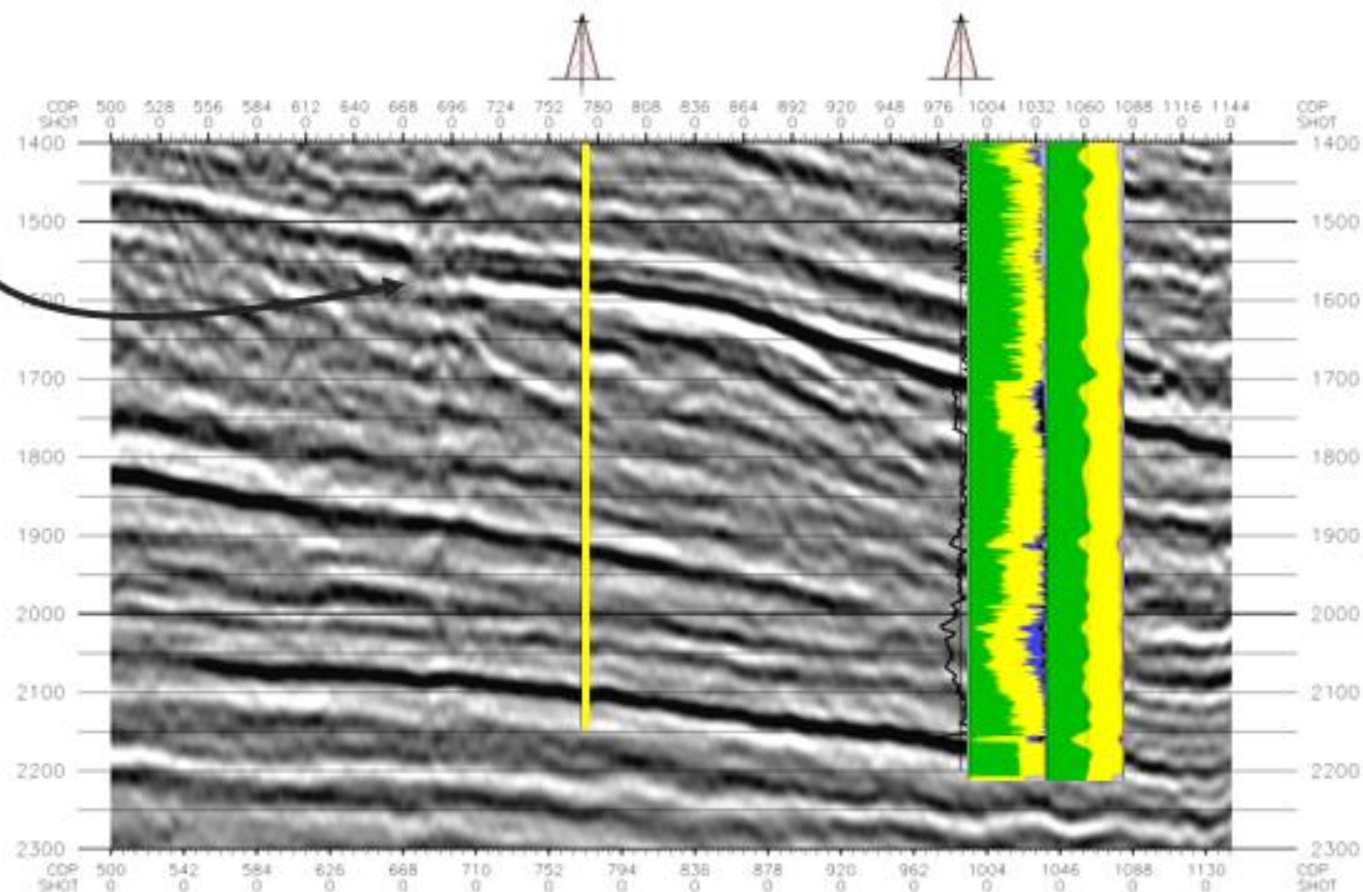
Arbitrary Line Connecting Pipeline State #1 to Talitha Location A



Shelf Margin Deltaic

Talitha A Location

Pipeline State #1



24
22
20
18
16
14
12
10
8
6
4
2
0
-2
-4
-6
-8
-10
-12
-14
-16
-18
-20
-22
-24

Processed
Migrated Stack

Time (ms)
Reverse Polarity
Time Scale: 6 m/s
Trace Scale: 75 fpl
Excursion: 481.567 units/in
Traces: main-ext-stk.agy
Contours: main-ext-stk.agy
Plotted: 2:46 PM 14/9/120

none

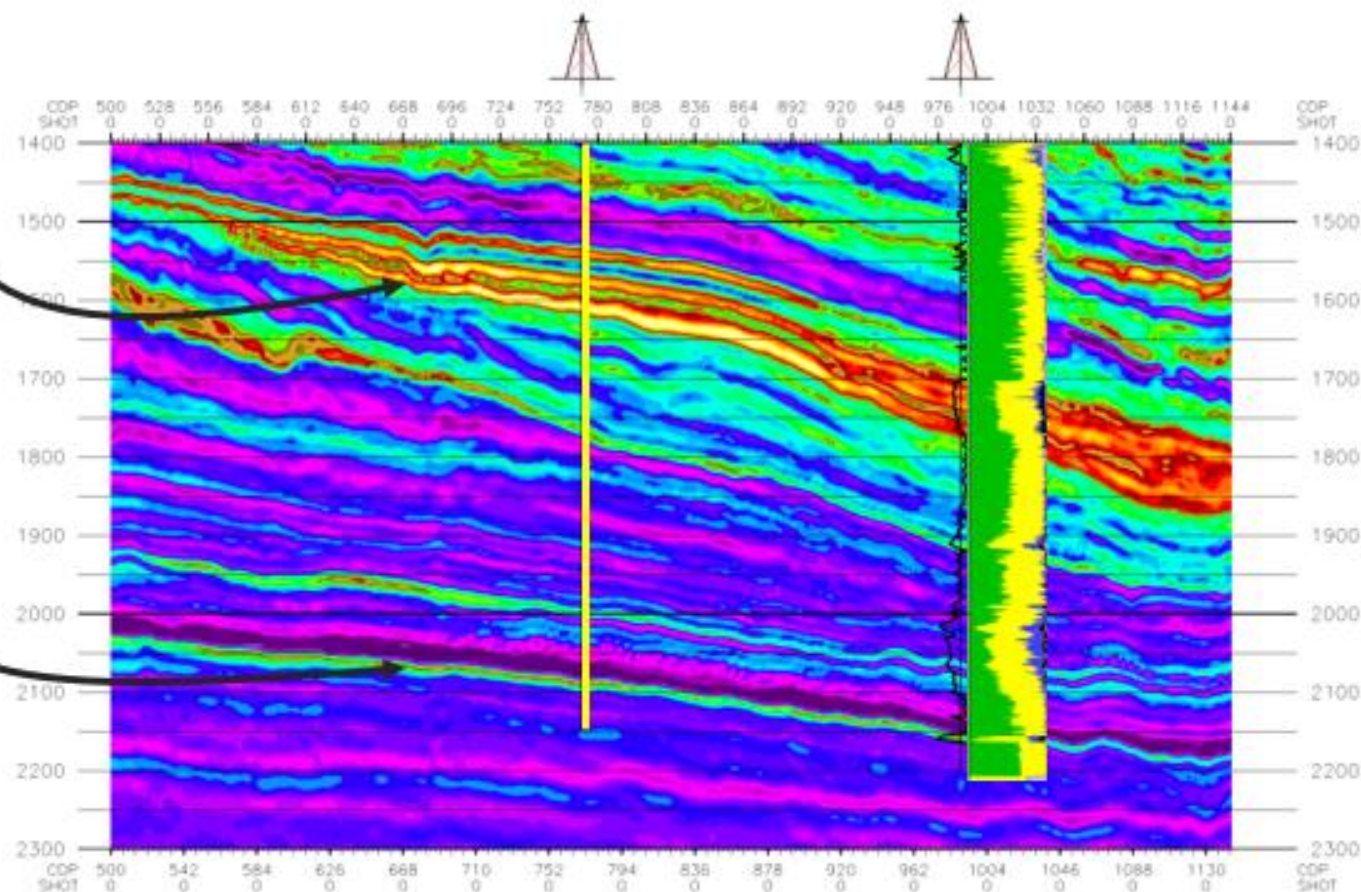


Shelf Margin Deltaic

Talitha A Location

Pipeline State #1

Kuparuk

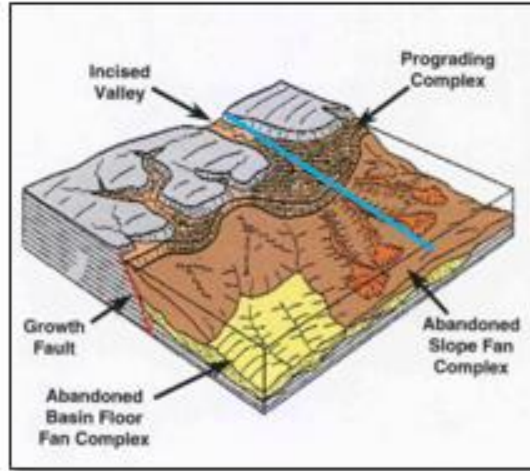


Better than
Pipeline

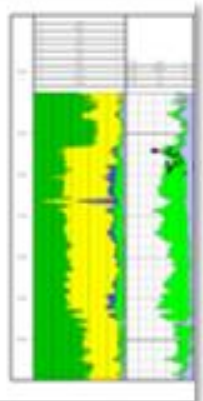
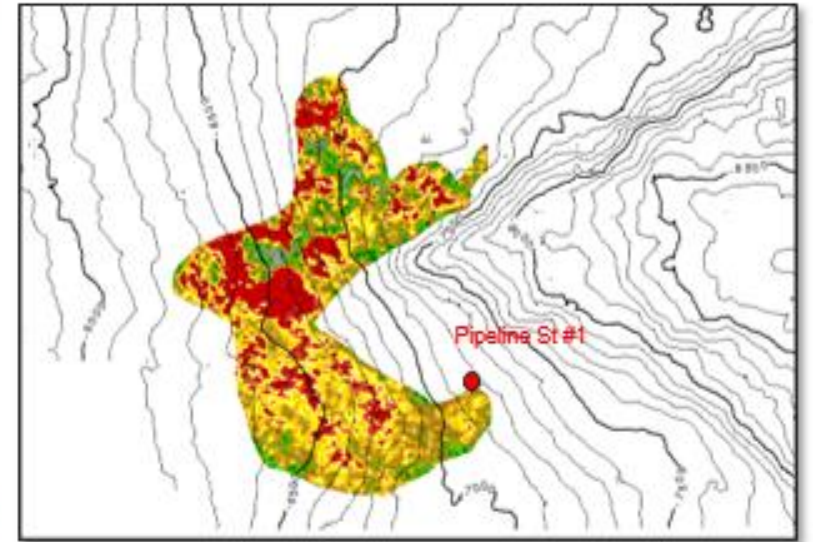
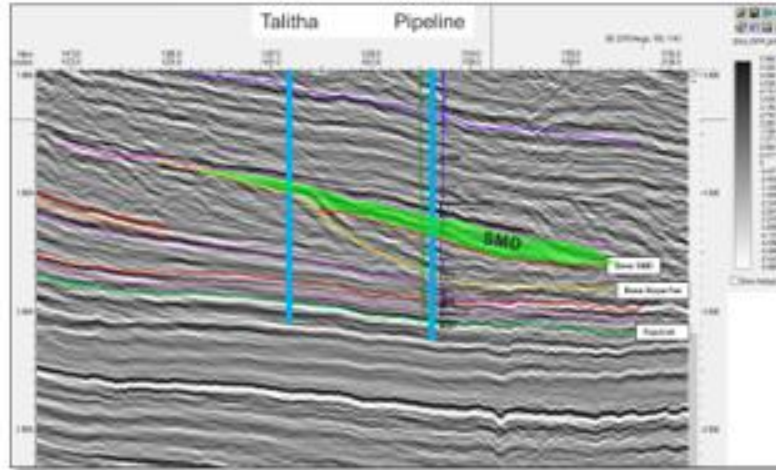
Reservoir Quality
Increasing Porosity

V/V

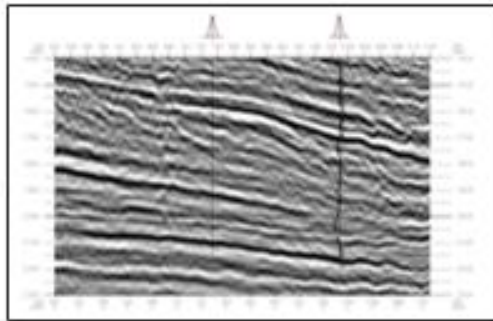
Shelf Margin Deltaics Trap Definition



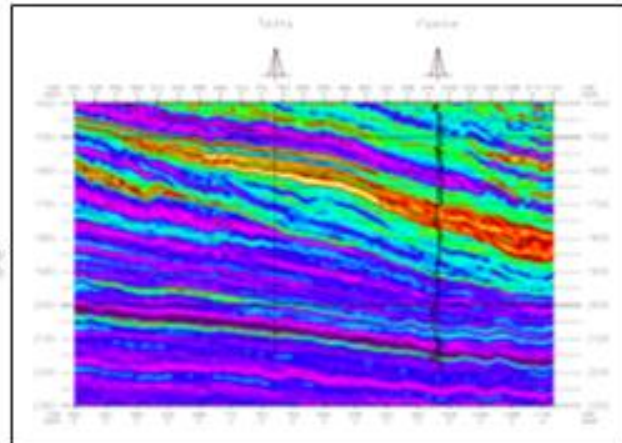
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Talitha Volumetrics

SMD and Kuparuk Deterministic Calculations



Talitha Unit Area: 44,453 acres

SMD	LKA
OIP (BnBBLS)	1.1
Recoverable (BnBBLS)	0.302

Kuparuk	PANR
OIP (BnBBLS)	1.372
Recoverable (BnBBLS)	0.343

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