



# Delivering Large-Scale Natural Gas Exploration for Europe's Energy Crisis

April 2024 Corporate Presentation

MCF Energy Ltd. (Formerly Pinedale Energy Limited)



## Strong Upside Case

- Clear path to significant German gas production with imminent, scalable drilling at Lech Concessions and production testing at Welchau (Austria); new production concessions (Czech Republic) with strategic relevance to Europe's energy security

## Mar 2024 Welchau Gas Discovery in Austria

- Full testing set for October 2024 at condensate and oil-rich 115-metre discovery interval; Numerous potential drilling sites across 100 km<sup>2</sup> area (25% to MCF Energy)

## Gearing Up for High-Impact Drilling in Germany

- Kinsau-1A drillsite prep underway; Planning imminent re-entry of 1983 well which tested 24.7MMcf per day. MCF Energy is carried for drilling costs up to 5 million euros with a 20% interest at 10 sq km Lech East Concession
- Drilling anticipated this year at 100 sq km Lech East Concession (100% to MCF Energy) on trend and to the north and east of the Kinsau discovery wells. 13 similar or identical seismic targets identified, plus 10 additional possible development wells. Drill site land access agreement executed, permitting underway
- Several other large-scale prospects including Reudnitz and Erlenwiese (both 100% to MCF Energy) under review; additional targets under application or evaluation

## Extensive European Energy Track Record

- CEO James Hill led exploration for Bankers Petroleum, which grew oil production in Europe by 2000% and achieved a peak market cap of \$2.25B
- Co-Founder Ford Nicholson previously led Bankers Petroleum to a \$575 sale in 2016, was vice chair of InterOil, acquired for US \$2.5B in 2016, and co-founded Nations Energy, acquired for US \$1.9B in 2006
- Executive Chairman Jay Park KC is a renowned international energy lawyer based in London
- Technical Advisor Deborah Sacrey is an accomplished geologist and geophysicist focused on leveraging machine learning and AI for hydrocarbons discoveries
- Director General Wesley Clark is the former Supreme Allied Commander Europe of NATO. Hill, Nicholson and Clark played key roles in the leadership of BNK Petroleum, which conducted exploration in six European countries

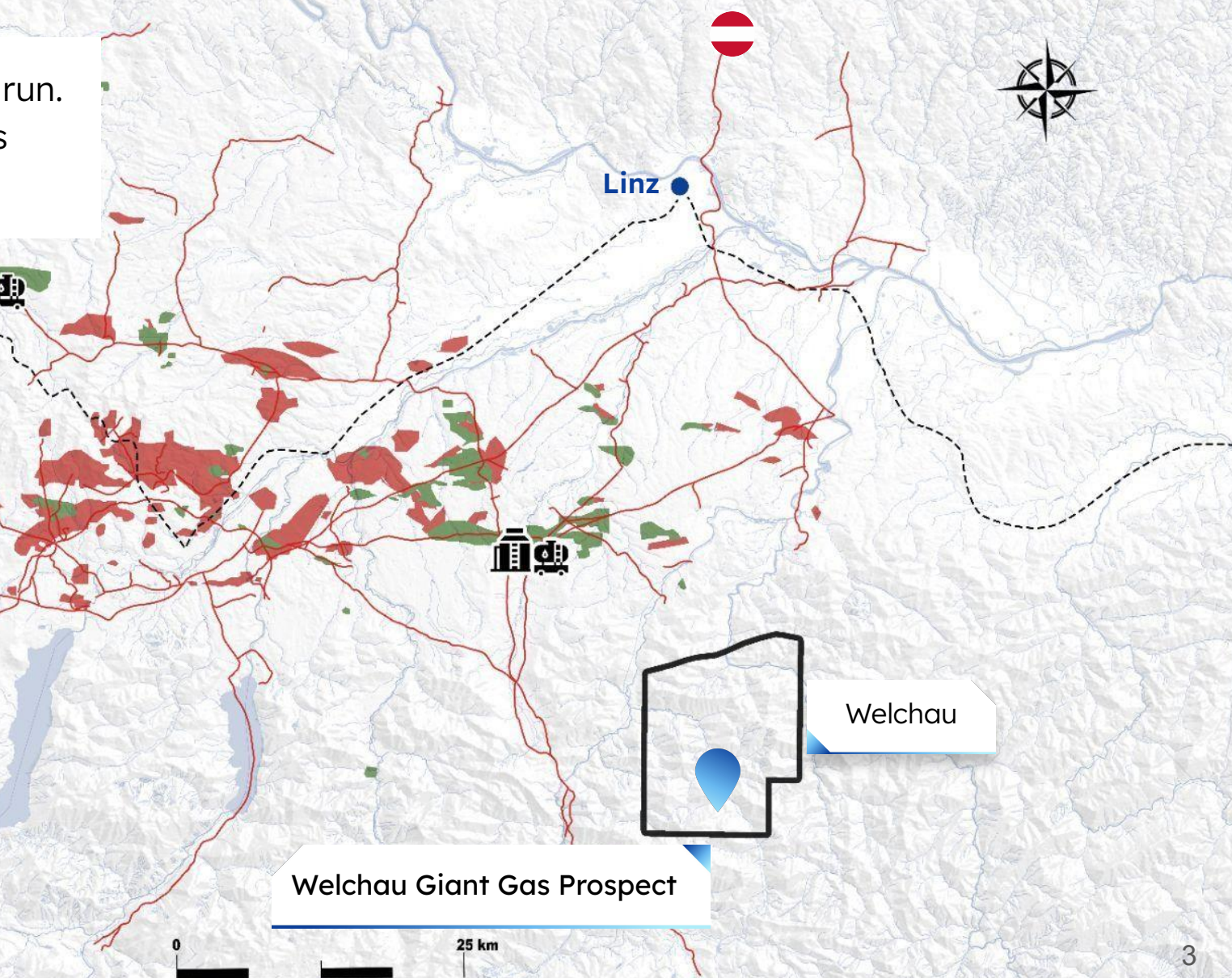
# The Opportunity: Austrian Welchau Gas Discovery



Well drilled to 1733 meters and Wireline Logs run.  
Estimated 115 meters of potential oil and gas bearing thickness.



- Gas Reservoirs
- Oil Reservoirs
- Gas Pipelines
- Railroads
- Train Loading Station
- Central Oil Processing and Gathering Facility with Storage Capabilities



Welchau Giant Gas Prospect

# Welchau – Austrian Hydrocarbon Discovery



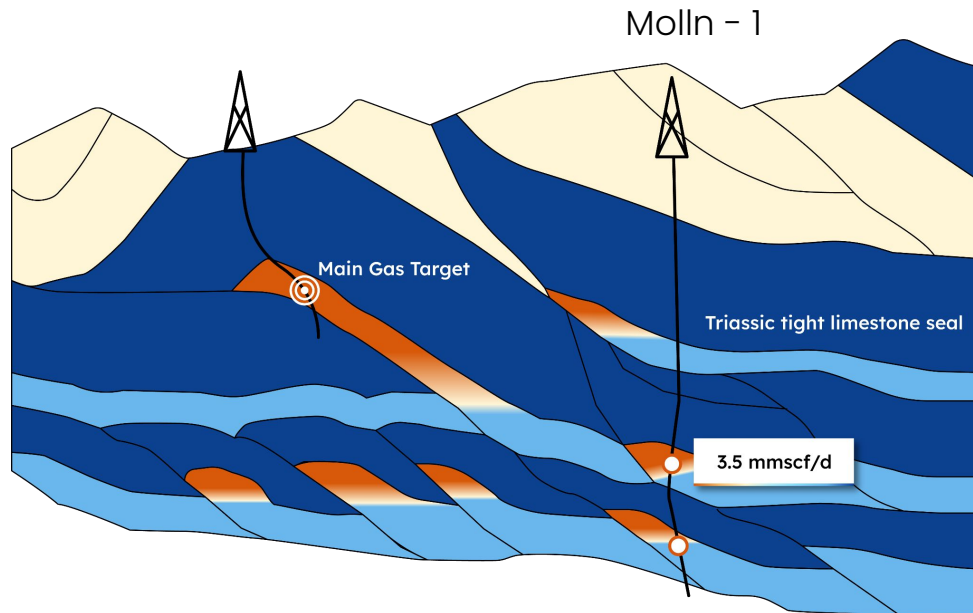
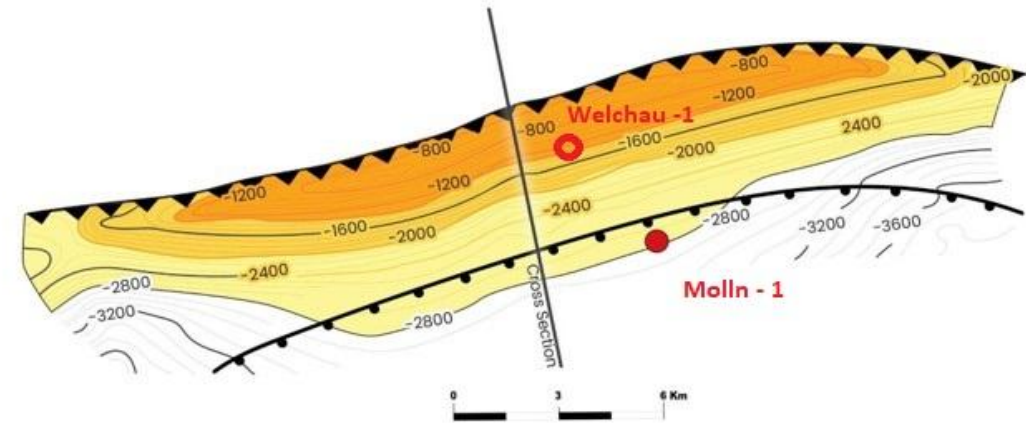
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**Drill Depth: 1773 meters**

Main objective at 1452 meters – 300 meters deeper than projected with improved seal above the reservoir

**Reservoir (main target): Triassic Limestone**

Over 140 meters of potential oil and gas bearing thickness. Encountered 115 meters of Potential zone.



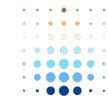
**Original Geologic Model Validated – Very Close to Estimates.**

Hydrocarbon Type	Unit	1U	2U	3U
Gas	BCF	332.0	584.0	1,018.0
Condensate	MMBC	5.5	10.1	18.4
<b>Total1</b>	<b>BCFE</b>	<b>365.0</b>	<b>644.6</b>	<b>1,128.4</b>

\*Does not reflect increase in MCF's economic interest from 20% to 25%, that occurred in January, 2024.

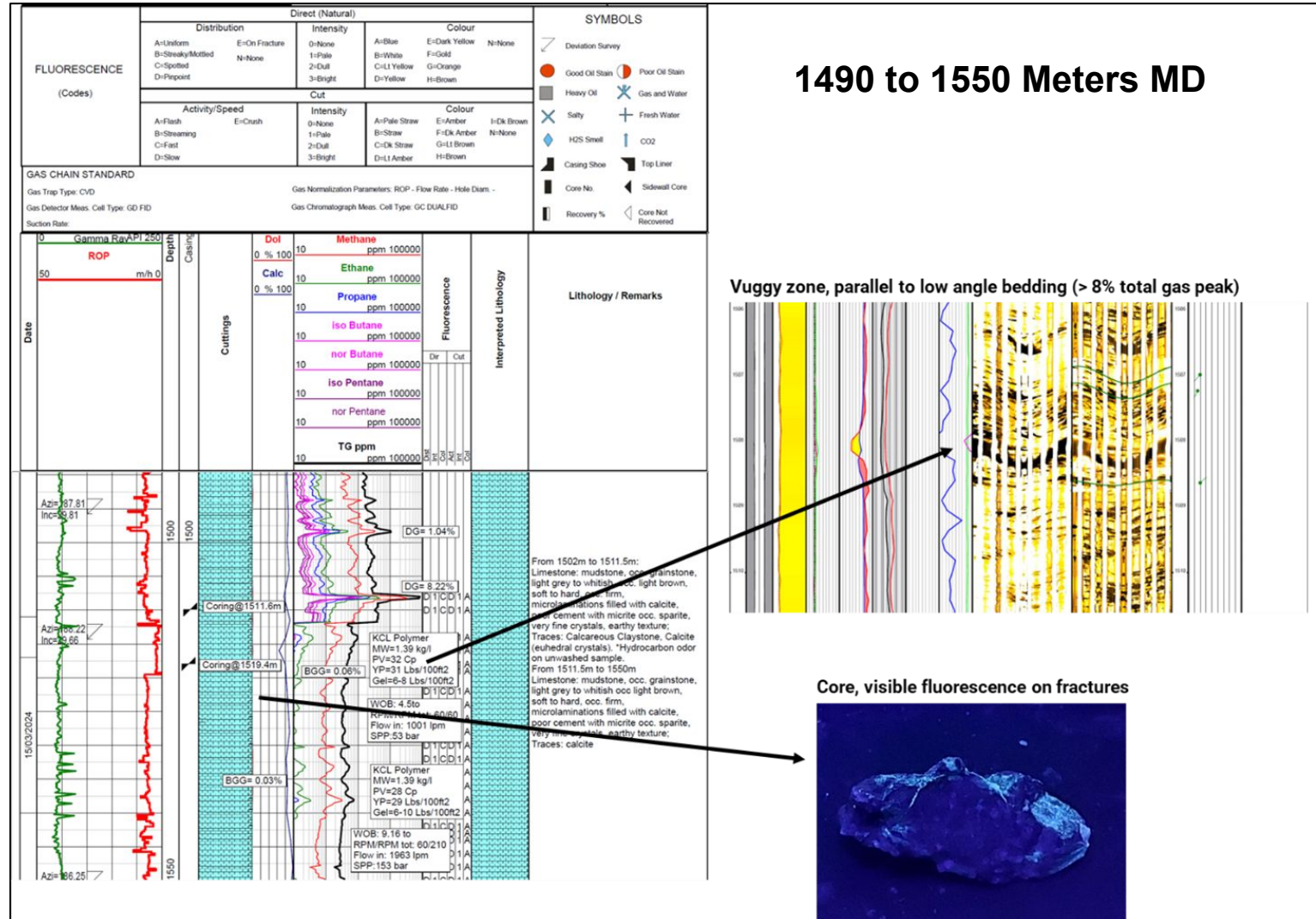
Source: Resources Audit Report Welchau Prospect, ADX-AT-II Concession, Austria, Prepared by Gaffney, Cline & Associates Limited December 2022. There is no certainty that any portion of the resources will be discovered. If discovered, there is no certainty that it will be commercially viable to produce any portion of the resources. The Prospect extends outside of the ADX-AT-II license into open acreage, under application. The volumes presented here represent the total structure.

# Welchau - 1

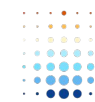


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# Welchau Core Sample 1511 to 1519



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Fractured Limestone



MCF Energy now controls a significant portfolio of hydrocarbon prospects in Germany at various stages of development.

## A Lech Concession

**Kinsau-1A drillsite prep underway; Planning imminent re-entry of 1983 well which tested 24.7MMcf per day. Carried for drilling costs up to 5 million euros with a 20% interest**

## D Erlenweise

Target area has > 500 MMBOE discovered hydrocarbons in place and an estimated 50 to 200 MMBOE incremental in three main prospective license areas.

## B Lech East

100% owned, 100 km<sup>2</sup> block with 13 similar or identical seismic targets identified to Kinsau, plus 10 additional development wells. Land access agreement executed, permitting underway

## E Prospect Area

Under review, redevelopment of existing field will unlock substantial upside in the area. Optionality to explore geothermal energy / consider hydrogen generation for Munich industry.

## C Reudnitz

Approximately 70 kilometers southeast of Berlin in a rural area, with proven phases: Helium (Approx. 0.2%) and methane (14-20%) associated with high nitrogen content (>80%)

## F Prospect Area

Existing producing fields, with mature production in the area. Cretaceous sands, with both reef and bedded sandstone structures prospective for hydrocarbon production.

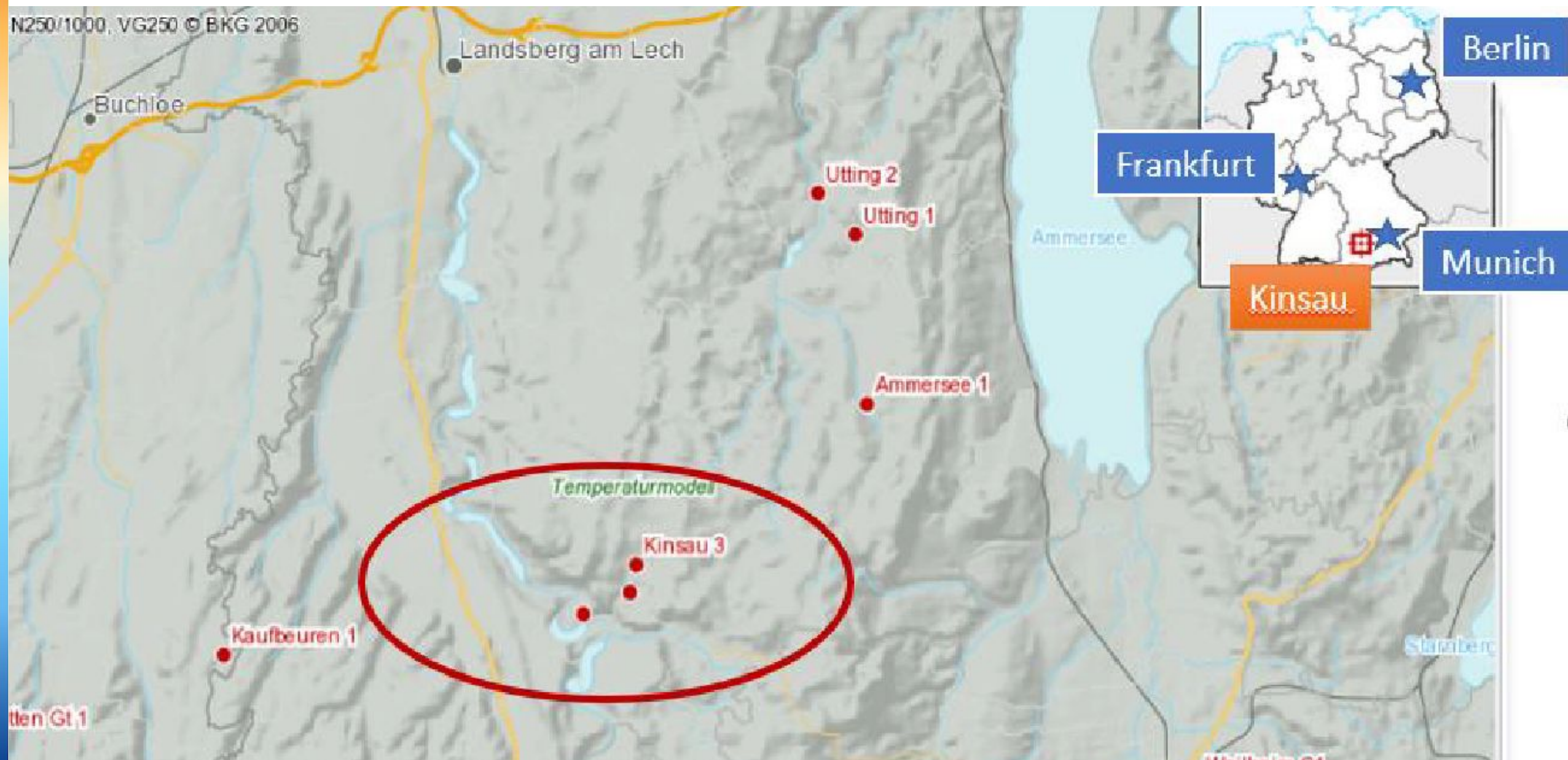


# Location of the Kinsau Wells – Lech Concession

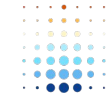


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# Kinsau-1A drill site on the Lech concession block

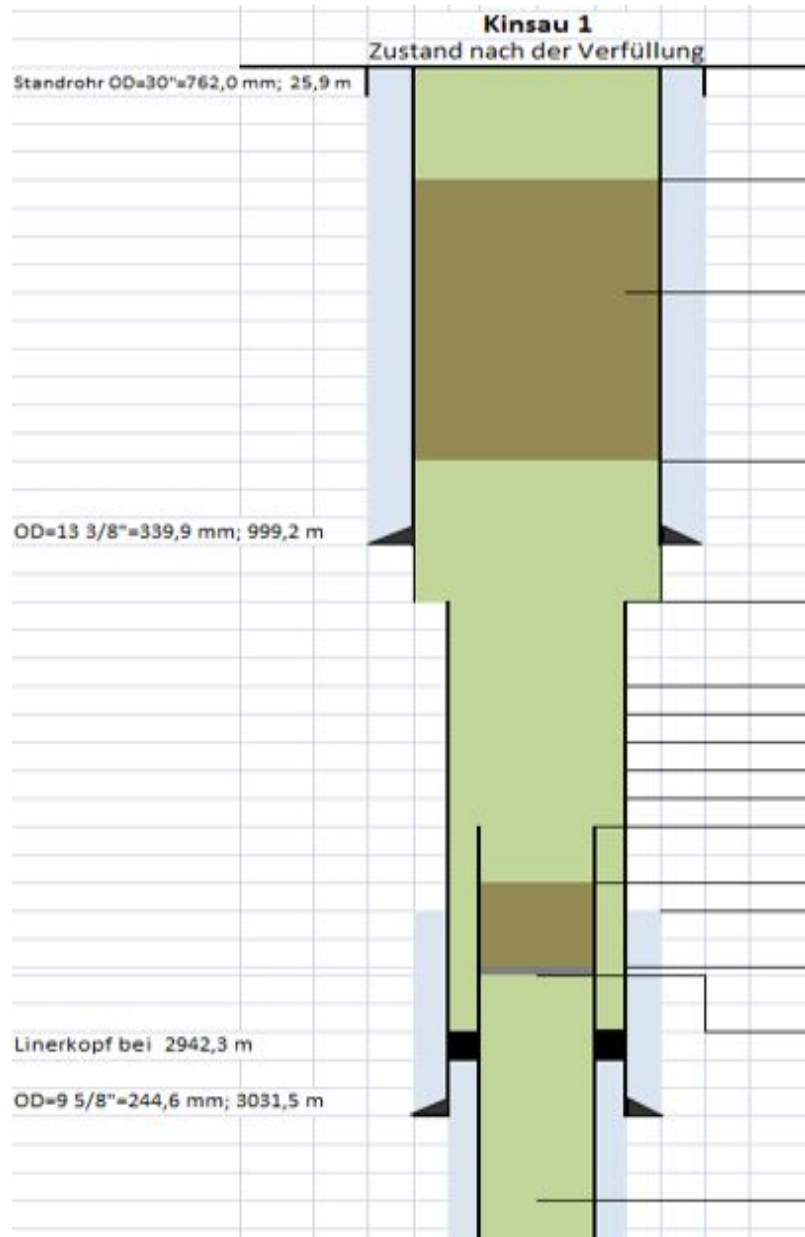


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Ready for drillsite construction



# Drilling Kinsau-1 (1983)



Bohrung Kinsau 1:  
Abbildung aus Oil and Gas Journal Nov. 1983

# Well result Kinsau-1 from the 1983 discovery



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<b>Drilling &amp; Elevation</b>	04.02.-06.05.1983, 691.5 m above mean sea level
<b>TD</b>	3940m in Basement
<b>Top and Base Purbeck</b>	3179 m (-2487.5m TVDSS) to 3249 m (-2557.5 m TVDSS) Gas/Condensate reservoir
<b>Top and Base Malm</b>	3249 m (-2557.5 m TVDSS) to 3842 m (-3150.5 m TVDSS)

## Test Program

<b>Open Hole DST</b>	Max 2,500 m <sup>3</sup> /h (2.12 MMcfd) at 50 bar FWHP, not stabilized
<b>3 Perforated Intervals in Purbeck</b>	Max 10,000 m <sup>3</sup> /h (8.48 MMcfd at 50 bar FWHP, not stabilized
<b>Rate Test after Acidizing</b>	9,100 m <sup>3</sup> /h      FWHP 205 Bar    (7.71 MMcfd) 17,500 m <sup>3</sup> /h      FWHP 192 Bar    (14.83 MMcfd) 29,150 m <sup>3</sup> /h      FWHP 129 Bar    (24.71 MMcfd)
<b>Total Test production</b>	1.3 MM m <sup>3</sup> (45.9 MMCF) wet gas and 240 m <sup>3</sup> (1510 Barrels) of condensate recovered from a 29m gross interval.
<b>Reservoir pressure</b>	283.4 bar pre test and built to 282.0 bar after test

Production at 10MMCFD at \$10 per MCF = free cash flow at \$100k per day

# Well result Kinsau-2 from the 1983 discovery



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<b>Drilling &amp; Elevation</b>	09.03. – 28.05.1983, 658.2 m above mean sea level
<b>TD</b>	3400m within Upper Jurassic Malm, Total deviation 389.2 m to N, TVD to MD correction 33.8 m
<b>Top and Base Purbeck</b>	3170 m (-2478.3m TVDSS) to 3212 m (-2524.8 m TVDSS)
<b>Purbeck</b>	<u>Gas zone Kinsau #1</u> Hydrocarbon bearing – <u>not tested</u>
<b>Top Malm</b>	3212 m (-2524.8 m TVDSS) Net thickness 9 m Av. Porosity 4,4%, > 10% in dolomites
<b>Test Program</b>	
<b>Cased Hole DST</b>	Perforation 3228 -3238 m in Malm, no inflow
<b>Production after Acidizing</b>	Perforations at same depth 60,000 m <sup>3</sup> (2.1 MMcf) Gas and 144.7 m <sup>3</sup> (910 barrels) of oil and water. Water cut 29% (636 barrels of oil)
<b>Reservoir Pressure</b>	282.0 bar pre-test and built to 281.8 bar after test

# Well result Kinsau-3 drilled in 1985



## Drilling & Elevation

14.02. – 18.04. 1985, 702.87 m above mean sea level

## TD

3371 m within Upper Jurassic Malm, Total deviation 157.7 m to N, TVD to MD correction 8.55 m at TD

## Top and Base Purbeck

3202 m (-2495.1m TVDSS) to 3244 m (-2537.3 m TVDSS)

## Purbeck

Hydrocarbon indications from core & logs – Porosity 4%

## Top Malm

3244 m (-2537.3 m TVDSS)

## Test Program

### Open Hole Injectivity Test

3327 -3371 m in Malm, recovered 40 m<sup>3</sup> (252 barrels) gas cut formation water

### Production after Acidizing

Perforations 3247 - 3253 m

4.0 m<sup>3</sup> (25 barrels) crude oil with minimal gas

626.7 m<sup>3</sup> (3942 barrels) formation water and treatment liquid

recovered at a rate of 232 m<sup>3</sup>/d (1,463 bpd)

### Reservoir Pressure

282.0 bar pre test and built to 278.7 bar after test

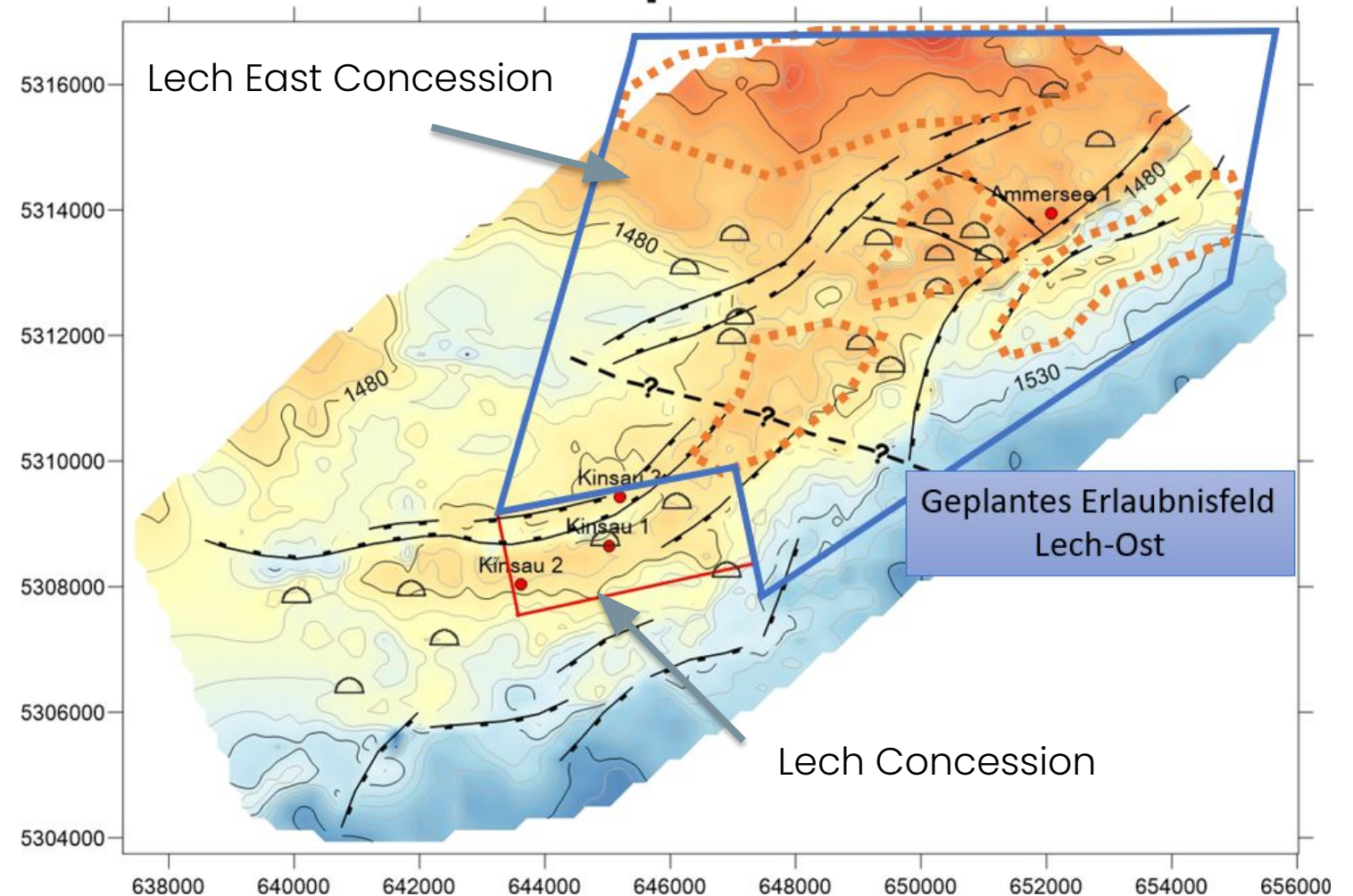
# Lech East Exploration Licence



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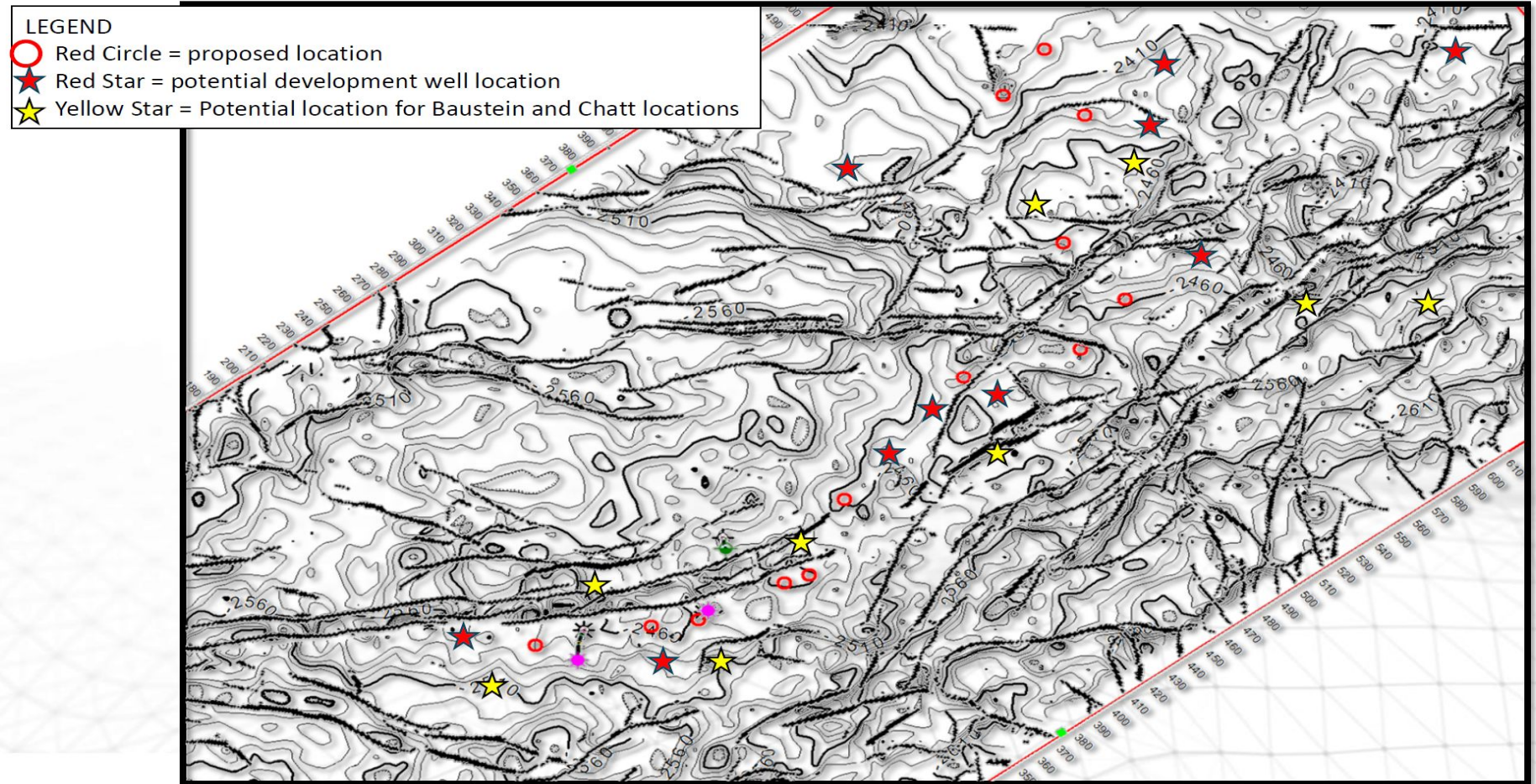
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Award August	2023
Drilling	Q1 2024
Pilot gas production	Q4 2024
Award Area	100 sq km
First Exploration Period	Three years



REFER TO ADVISORIES

# Proposed Locations Lech and Lech East From Seismic Analysis



- 14 Proposed Locations
- 10 Development Locations
- 9 Shallow Zone Locations
- 4 locations on **Lech**
- 2 Development location

**Structure Map Top Jurassic**

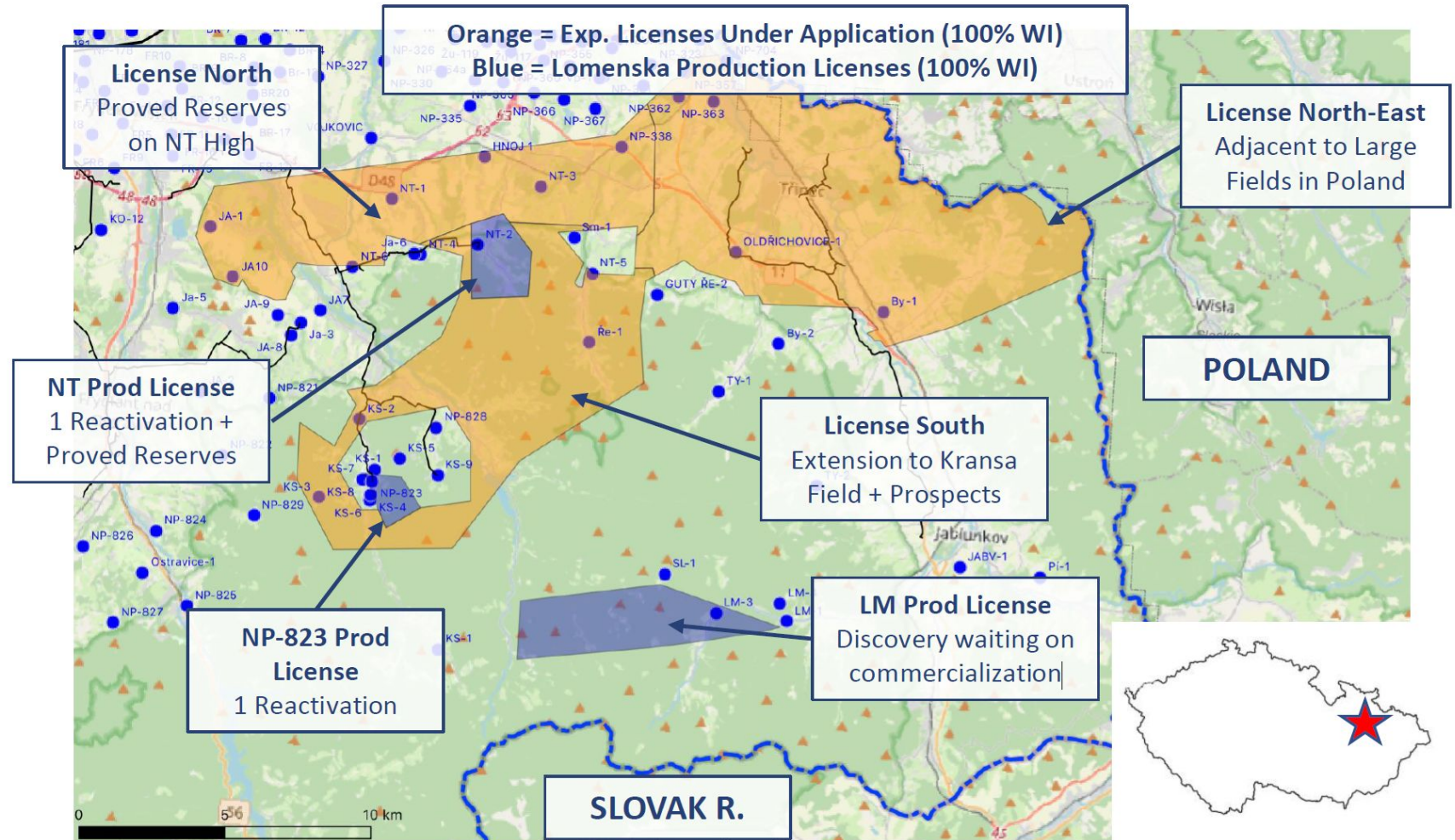


# Production and Exploration Licences Czech Republic



Production Licences  
6880 acres

Exploration Concessions  
42,551 acres



# NT Ridge Production Concession



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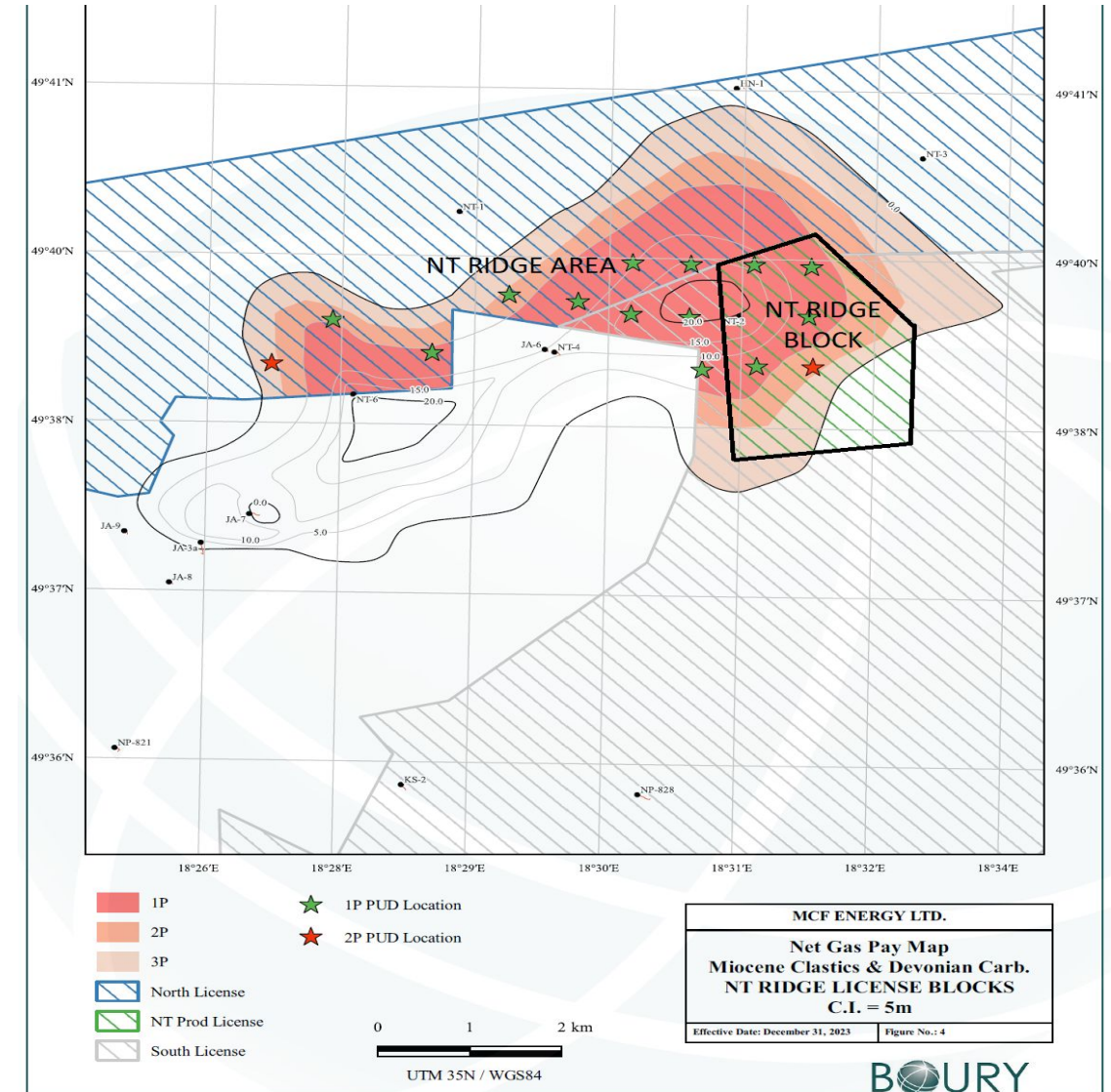
13 PUD Locations

2 Probable Locations

## Independent Reserve Report NT Ridge

Reserve Category	COMPANY SHARE - FORECAST PRICE SCENARIO							
	Remaining Reserves as of December 31, 2023							
	Light/Medium Crude Oil		Heavy Crude Oil		Conventional Natural Gas		NGL	
	Gross	Net	Gross	Net	Gross	Net	Gross	Net
Mbbl	Mbbl	Mbbl	Mbbl	MMcf	MMcf	Mbbl	Mbbl	
Proved Developed								
Producing	-	-	-	-	-	-	-	-
Non-Producing	-	-	-	-	-	-	-	-
Proved Undeveloped	-	-	-	-	8,156	7,590	-	-
Total Proved	-	-	-	-	8,156	7,590	-	-
Probable	-	-	-	-	3,754	3,477	-	-
Total Proved + Probable	-	-	-	-	11,910	11,067	-	-
Possible	-	-	-	-	3,022	2,801	-	-
Total Proved + Prob + Poss	-	-	-	-	14,932	13,868	-	-

Cash flow in 3<sup>rd</sup> Quarter



REFER TO ADVISORII



# Independent Reserve 51-101 Report

## NT Ridge Concession



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### TOTAL COMPANY

### COMPANY SHARE - FORECAST PRICE SCENARIO

#### Future Net Revenue Before Income Tax as of December 31, 2023

Reserve Category	Undis- counted (M\$US)	Discounted			
		at 5% (M\$US)	at 10% (M\$US)	at 15% (M\$US)	at 20% (M\$US)
Proved Developed Producing	-	-	-	-	-
Non-Producing	(100)	(100)	(100)	(99)	(99)
Proved Undeveloped	51,588	42,901	36,080	30,649	26,273
Total Proved	51,488	42,801	35,980	30,550	26,174
Probable	27,379	21,740	17,573	14,435	12,025
Total Proved + Probable	78,867	64,541	53,553	44,985	38,199
Possible	24,717	18,823	14,749	11,847	9,721
Total Proved + Prob + Poss	103,584	83,364	68,302	56,832	47,920

# Reudnitz Gas Field



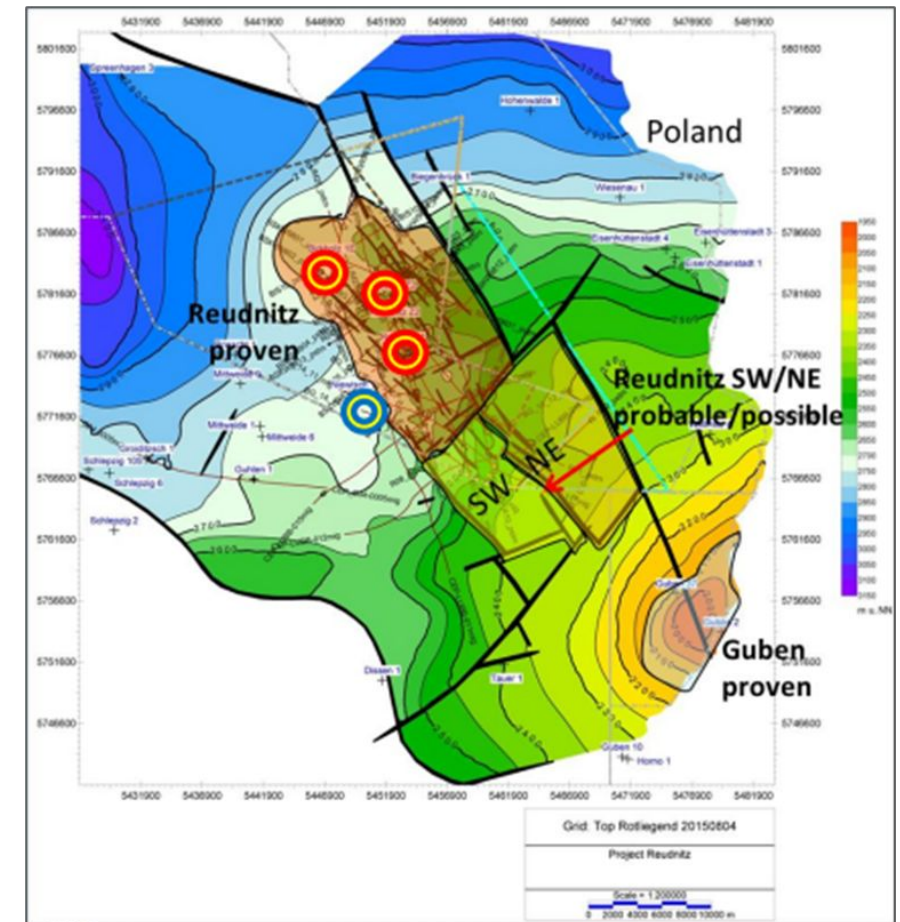
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Approximately 70 kilometers southeast of Berlin in a rural area, with proven phases: Helium (Approx. 0.2%) and methane (14–20%) associated with high nitrogen content (>80%)

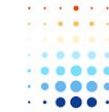
## PLANNED DEVELOPMENT

- Pilot production test beginning in 2024 from horizontal well
- Cryogenic technology for helium and nitrogen sequestration
- Pilot modular development units designed
- Continued development of Reudnitz-NE and other field segments
- Development of Zechstein Oil zone parallel with gas zone

Gaffney Cline & Associates ("GCA") has independently assessed the best estimate (P50) of 118.7 Billion cubic feet (BCF) of Methane, and 1.06 BCF of Helium resource. Separately, GCA has estimated resources in the Zechstein Formation of 4.4 million barrels of oil.



# Independent Resource Assessment



## Gaffney Cline Associates (“GCA”) Derived

### HIGHLIGHTS

- Deep inventory of prospective drilling inventory
- Accompanying 2D seismic coverage across all the lands with resource assessed
- Proprietary AI and machine learning being done to supplement conventional geological and geophysical interpretations
- Strategic partners involved, while notable upside held in 100% working interest
- Incremental Helium upside provides diversification
- No estimates included for Lech or Lech East
- No estimate given for new Erlenweise concession

Resource by Location and Classification	UoM	Contingent	Perspective	Total Resource
Germany – Gas	Bcf	60.8	57.9	118.7
Germany – Oil	MMBbls	4.2		4.2
Austria* – Gas	Bcf		584	584
Austria* – Condensate	Mcm		10.1	10.1
<b>Euro Total P&amp;NG</b>	<b>Bcf</b>	<b>60.82</b>	<b>642.26</b>	<b>703.08</b>
Germany – Helium	Bcf		1.49	

\* Does not reflect the increase in MCF’s economic interest from 20% to 25%, that occurred in January 2024.

- Volumes reflect the respective best estimate (P50 or 2U), respectively.
- Refer to corporate website and published documents for further disclosure, regarding the specific classifications and prospect specific contingencies and qualifications made by GCA.

GCA has not yet assessed the incremental resource potential on the newly acquired Lech East acreage, which is anticipated to add notably more.

# Erlenwiese Exploration License



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**Award** September, 2023  
**First Exploration Period** Two years

## NEXT STEPS

- MCF Energy has acquired the latest 2D and is in the process of obtaining the available 3D seismic data.
- The 2D data is currently reprocessing for further interpretation and analysis.
- MCF Energy will perform its own AI and machine-learning analysis to further supplement and de-risk its geological and geophysical analysis.



**1. Aufteilung**  
Karte zum Antrag auf Erteilung einer Erlaubnis zur Aufsuchung von Kohlenwasserstoffen, wobei den bei ihrer Gewinnung anfallenden Gasen, zu gewöhnlichen Zwecken

Antragsteller: MCF Energy Ltd.  
Name des Erklärenden: Karl  
Bekanntmachung: Kohlenwasserstoffe, wobei den bei ihrer Gewinnung anfallenden Gasen  
Land: Hessen  
Regierungsbezirk: Darmstadt  
Ort: Groß-Gerau  
Regierungsamt: Regierungsbezirk Darmstadt

Nummern der Felderpunkte (SM bzw. ST)

Nr. Nr.	Rechtswert	Werkwert
1	900000-00	110000-000
2	947700-00	110000-000
3	947700-00	117100-000
4	980000-00	110000-000

Rechtskraft des Erlasses: 11.09.2023

Ordnungsbekanntmachung der Prospektierung  
Antragsteller: MCF Energy Ltd.

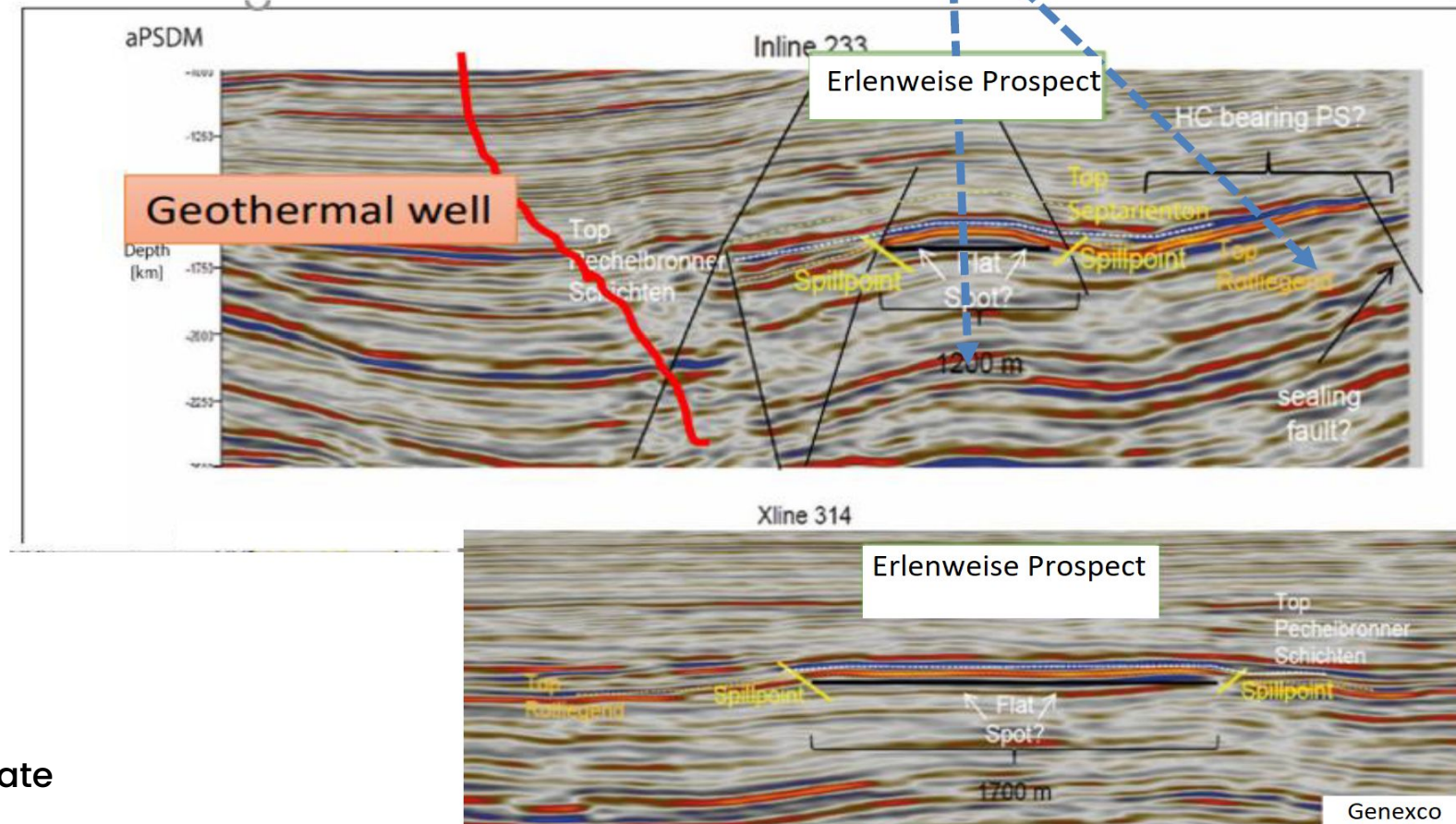
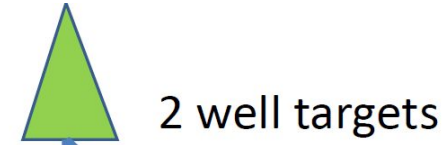
Antragsteller: MCF Energy Ltd.

Ordnungsbekanntmachung der Prospektierung  
Antragsteller: MCF Energy Ltd.

Recht für weitere Vorteile



## Erlenweise Prospect Seismic



Internal Resource Estimate  
10 to 20 MMBO

# Focused Executive Leadership



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**Jay Park,**  
*KC*

**Executive Chairman & Director**

Over 40 years experience advising governments and the world's largest energy companies on acquisition and divestiture strategies. Founder, Park Energy Law. Former CEO, Reconnaissance Energy Africa.



**James Hill,**  
*P. Geo*

**CEO & Director**

Professional geologist with over 40 years of technical and executive level experience in petroleum and natural gas exploration and development. Former Vice President of Exploration for BNK Petroleum and Bankers Petroleum.



**Aaron Triplett,**  
*CA, CPA*

**CFO & Corporate Secretary**

Chartered Accountant (2008) and Chartered Professional Accountant (2015) serving the natural resources industry. Experienced Chief Financial Officer formerly with Hillcrest Energy, Angkor Gold and others where he was responsible for all aspects of a company's financial operations.



# Renowned Technical Advisors



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**John Gaffney**

John joined Gaffney, Cline & Associates (GCA) in 2004 as a Business Development Manager, both in the UK and then in Singapore. He then served as the Regional Director for Asia Pacific from 2009–2014. He then returned to the UK to be the Regional Director for Europe, Africa, Middle East and Russia Caspian region. GCA is an international petroleum consultancy, which has been operating worldwide for over 55 years.



**Deborah Sacrey**

Deborah is an experienced geologist and geophysicist who has spent 45 years working on oil and gas exploration in Texas, Louisiana, and the Mid-Continent region of the US. In the past decade, she has focused on using multi-attribute neural analysis to study seismic data and make discoveries for clients. She has become an expert in the use of Paradise software and has made over nine discoveries using this method, under the guidance of Dr. Tom Smith, the founder of SMT.



**Mark Enfield**

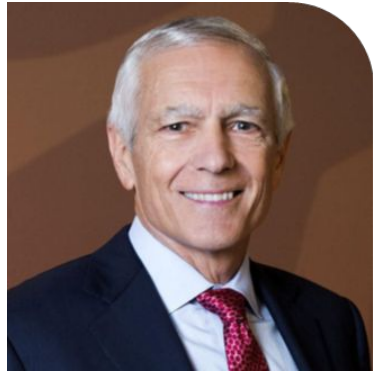
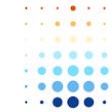
Mark has more than 30 years of experience in the oil and gas industry, with a proven track record in various roles including exploration, appraisal, development, and new ventures as an operator. He has expertise in both conventional and unconventional plays in Europe, and holds a PhD in Structural Geology and Extensional Tectonics from Imperial College. Mark is known for his technical innovation in the industry.



**Ritchie Wayland**

Ritchie has experience in oil and gas with both major and junior companies in management and operational roles. He has a range of commercial experience, including SPAs, farm-in/out deals, GSAs, JOA/PSAs, and equity determinations. Ritchie has managed E&P projects and production assets for international and independent oil companies in Central Europe, West Africa, and the UK North Sea. He holds an MSc in Petroleum Geology from the University of London's Imperial College.

# Independent Board of Directors



**General Wesley Clark**

Director

General Clark was Supreme Allied Commander Europe of NATO from 1997-2000. He has received numerous honorary degrees and awards including the Presidential Medal of Freedom, the Silver Star, Purple Heart and honorary knighthoods from the United Kingdom and the Netherlands.



**Richard Wadsworth,**

P. Eng.

Director

Mr. Richard Wadsworth is a petroleum engineer with over 30 years experience in operations and management internationally. He was a co-founder, director, and President of Bankers Petroleum. Mr. Wadsworth recently led and developed a 55,000 bopd oilfield in Iraq with development planned to 230,000 bopd.



**Jeffrey Harder,**

FCPA, FCA, FCBV, ICD.D

Director

Mr. Jeffrey Harder has more than 40 years experience in the natural resources sector. He held several leadership positions with Deloitte Canada, including: Office Managing Partner, Canada business leader, Americas business leader, Global executive committee member and Board of Directors member.

# Experienced Strategic Advisors



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## Ford Nicholson

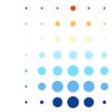
Ford Nicholson is a successful oil and gas entrepreneur with experience in building public energy companies in Asia and Europe. He has held positions such as deputy chairman at InterOil Corporation and co-founder and director at Nations Energy in Kazakhstan and Bankers Petroleum in Albania. He co-founded BNK Petroleum, which was formerly the largest subsurface oil and gas rights holder in Europe, and currently serves as the managing director of KPFG, a merchant bank and advisory firm in the energy sector.



## Gordon Keep

Gord Keep is an accomplished corporate finance professional and entrepreneur with experience in investment banking and public natural resource companies. He brings a wealth of expertise in governance and deal-making to MCF Energy. Gord is the CEO of Fiore Management & Advisory Corp., a private financial advisory firm, and serves as an officer and/or director for several natural resource companies. He has advised numerous leading mining and energy firms from startup to sale over the course of his three-decade career. Gord holds a B.Sc. in Geological Science from Queen's University and an M.B.A. from the University of British Columbia.

# Genexco Senior German Leadership



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Senior leaders of Genexco have agreed to join MCF Energy in a consulting capacity, bringing their valuable in-house German operating expertise, in addition to becoming significant shareholders in the Company. These include:

**Peter Eckhard Oehms**, a geologist and project manager with over 40 years of experience, including previously from 1998 to 2008 at Wintershall, Germany's largest crude oil and natural gas producer, including as managing director in its core asset Norway;

**Frank Steinich**, a drilling and operations specialist with over 35 years of experience, including work at ITAG, Central European Petroleum, and Rhein Petroleum;

**Matthew Keith**, an oil and gas professional with over 35 years of experience, including work at Cairn, Bowleven, and IPC (Lundin). He specialises in exploration, appraisal, well-design, planning, development, and HPHT operations;

**Jürgen Milinski**, a legal professional with over 35 years of experience in the energy sector. He was a portfolio manager at Gazprom in the Netherlands and previously supported Engie (Gaz de France) operations in the German and Caspian regions; and

**Jan Paul Van Driel**, a former head of economics and planning at Shell UK. He brings broad experience in corporate strategy, joint ventures and asset development to MCF Energy.

# Capitalization as of January 2024



MCF ENERGY LTD.

TSXV: MCF

<b>Capital Structure</b>	<b># of Shares</b>
Common Shares	243,607,864
<b>Proforma common shares</b>	
Dilutive securities	
Stock options issued and outstanding	14,850,000
Finders' Warrants @ \$0.62/share (Expire March '24)	0
<b>Proforma fully diluted common shares</b>	<b>258,457,864</b>



TSXV

MCF Energy Ltd. (formerly Pinedale Energy Ltd)

**MCF.V**

Suite 3123 - 595 Burrard Street  
Vancouver, BC V7X 1J1

T. 604.609.6110  
[www.mcfenergy.com](http://www.mcfenergy.com)

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**Auditor**

KPMG LLP  
Calgary, AB

**Legal Counsel**

Farris LLP  
Vancouver, BC

**Registrar & Transfer Agent**

Odyssey Trust Company  
Vancouver, BC

**Evaluation Engineer**

Gaffney Cline & Associates  
London, UK

**Investor Contacts**

Fiore Management & Advisory Corp.  
Vancouver, BC