



### **Emerald Oil & Gas NL**

Investor Presentation July, 2011

# Disclaimer

This presentation contains forward looking statements that are subject to risk factors associated with the oil and gas industry. It is believed that the expectation reflected in the statements are reasonable but they may be affected by a variety of variables and changes in underlying assumptions which could cause actual results or trends to differ materially to those stated, including but not limited to: product price fluctuations, currency fluctuations, drilling and production results, reserve estimates, loss of market, industry competition, environmental risks, physical risks, legislative, fiscal and regulatory developments, economic and financial market conditions, project delay or advancement, approvals and cost estimates. Investors should undertake their own analysis and obtain independent advice before investing in Emerald shares. All references to dollars, cents or \$ in this presentation are to Australian currency, unless otherwise stated.



### **Emerald Oil and Gas - Summary**

Exchange /Ticker:	EMR		
<b>Recent Stock Price:</b>	\$0.048		
<b>Issued Shares:</b>	785m		
Market Cap:	\$38m		
Cash:	\$8.5m		
Debt:	None		

#### Assets/Projects:

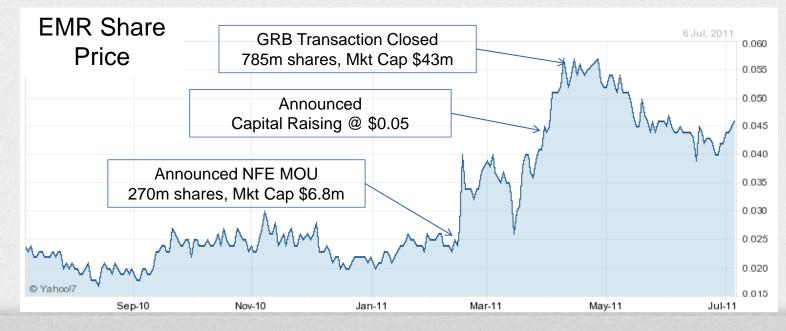
- Green River Basin Shale Oil & CBM (USA : Colorado/Wyoming) 45% interest in GRBJV - 60,000 net lease acres covering Niobrara Shale Oil play, 500Mcfd CBM production, 29 km gas gathering pipeline & gas production facilities
- Appalachian Gas (USA : Kentucky) 75% interest in KEP – 2500 net lease acres, 29 existing wells, 200Mcfd gas production, 13 km gas gathering pipeline, gas conditioning facilities
- NW Alice Onshore GOM Exploration (USA : Texas)
  35% interest in 2500 net lease acres covered by 55 mi<sup>2</sup> 3D seismic survey
- 4. Canning Basin Offshore Exploration (Australia : WA) 100% interest in 9600 km<sup>2</sup> offshore exploration permits



## **EMR Green River Basin (GRB) Acquisition**

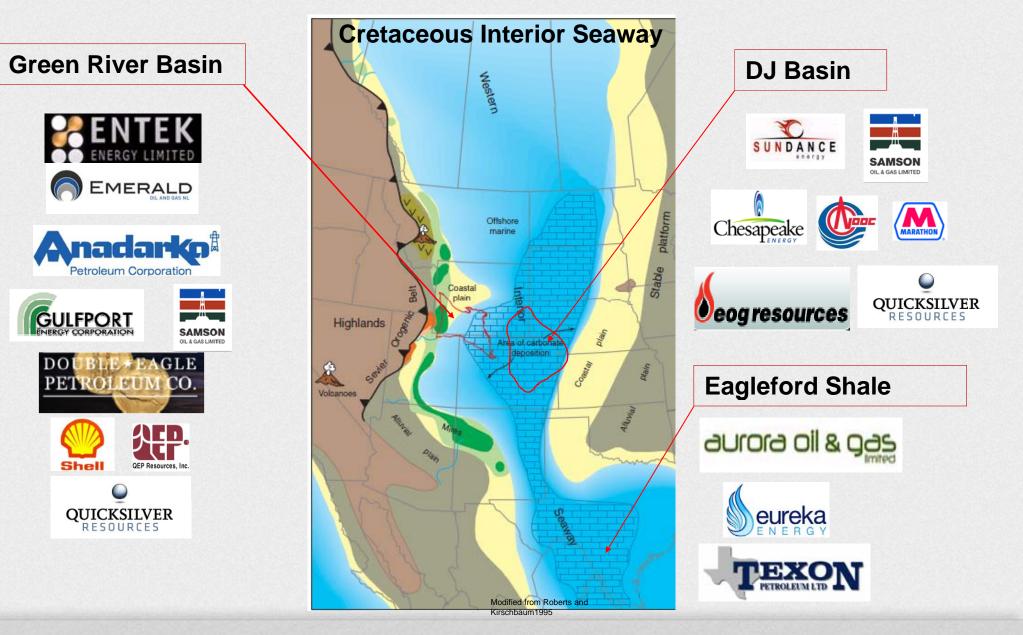
Acquired 45% interest in GRBJV from New Frontier Energy Inc for \$10m cash and 125m EMR shares:

- Approx 60,000 net acres mineral leases
- Niobrara shale oil play, CBM and conventional gas
- Existing gas production from partially developed CBM field
- 18 mile pipeline to gas sales point
- Entek Energy Ltd (ETE) holding corresponding 55% interest and operator
- Transaction closed 2 May 2011





## **Niobrara Oil Shale Players**





### **Comparison of Shale Oil Pays**

**Buck Peak Field Nolan #1 Slater Dome Field** IP 480 BOPD Drilled with **Green River Basin** D J Basin, Blake #33-1 air completed open hole **ENTEK GRB, LLC** IP 47 BOPD Jake 2-01 **Eagle Ford Shale** Recovered > 1.3 MMBO Robidoux 13-15T offset well 6300 8 清白 6400 60 1 6500 690 6600 DJ Basin 20-30' of Pay EFS ~ 20-30' of Pay STIT 6700 TVD Range Thickness Oil Porosity Oil Sat. тос OOIP / 640 EUR / 640 Resource (ft) Gravity (%) (MMBO) (MMBO) Play (ft) (%) (%) Middle 8,500' to 6800 140' 42 5 75% 6-20% 5 0.5 10,500' Bakken(1) 8,000' to Eagle Ford (2) 250' 45 8 72% 4.50% 30 1.57 14,000' 6900 Niobrara (DJ 2,000' to 150' to 350' 39 6 50% 2.79% 40 1.6 ž Basin) (3) 8,000' 2.69% No. We Niobrara 4,000'to 7000 40\* to 90\*\* 1.7\* to 3.4\* 800' to 1200' 38 to 44 7.5 58% Avg (GRB) 9,000' Cuttings (1) From USGS Paper 1653 \* Single bench OOIP \* 4% recovery \*\* All 3 benches and fractures OOIP \*\* 12% recovery (2) From Venoco corporate presentation (3) From various published presentations 7136.0 FT 

Green River Basin 300-500' Of Potential Pay

Oil Pay Zones



## **Niobrara Shale Oil Play Evolution**

#### **DJ Basin**

- Vertical wells 10 to 50 bopd
- EOG horizontal well (Jake 2-01H) late 2009 – IP 1500 bopd, 150,000 bbl oil in 6 months to "prove" the play
- Several horizontal wells drilled during 2010
- Land grab through 2010
- Prospective Niobrara oil acreage now scarce in the DJ Basin
- \$4800/ac + carry CNOOC's Chesapeake acquisition Feb 2011



#### **Green River Basin**

- Vertical wells 10 to 500 bopd
- Target Niobrara oil benches 2x to 5x thicker than DJ + fractured intrusives
- Horizontal wells to be drilled to "prove" the play
- Increasing acreage competition as attention turns from DJ Basin to GRB
- \$1300 per acre paid in Fed land sale Feb 2011



## **Green River Basin Niobrara Shale Oil**

### > GRBJV

- 55% Entek Energy (Operator)
- 45% Emerald
- 80,000 Gross acres, 60,000 Net
- Niobrara oil and gas
- CBM 500Mcfd + conventional gas
- 29 km gas gathering pipeline
- Production infrastructure

### > Niobrara Shale Oil play

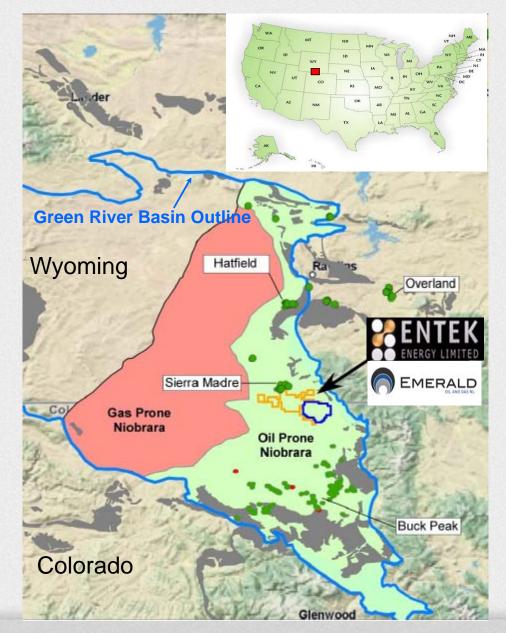
800 to 1200 ft Niobrara oil section multiple reservoirs

- 3 Niobrara "benches"
- Igneous intrusives

### > 2011 Drilling Program

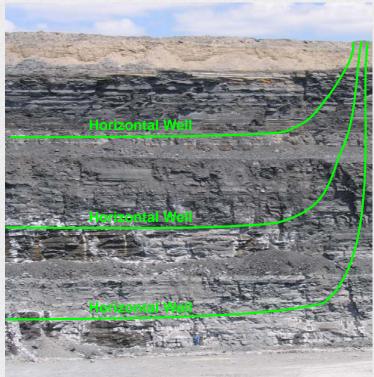
3 vertical Niobrara appraisal wells Multiple zone, frac stimulations Objectives:

- Gather technical data for horizontal wells in 2012
- Establish Niobrara oil production





### **Development Potential and Key Uncertainties**



#### **Prospectivity Summary**

- CBM, Niobrara oil & gas, conventional oil & gas
- 3 Self sourcing hydrocarbon systems in oil window
- Multiple oil zones in 1100 ft thick Niobrara section
  - 4 "benches" + fractured intrusives
- Oil and Gas/condensate flows obtained from Niobrara shale intervals and Frontier sand
- Indicative Development Potential : 250 to 500 wells assuming 160 to 320 acre horizontal well spacing

Naturally fractured igneous intrusives

Niobrara section showing carbonate rich benches encased in oil prone black shale

#### Key Development Issues - 2011 Appraisal Program)

- Which oil zones to target for development? Horizontal wells? Vertical wells?
- Frac designs? Niobrara benches, intrusives, Frontier sands
- Reservoir fluids? black oil, volatile oil, gas/condensate
- Reservoir performance?

### **2011 Niobrara Activity Plans**

Appraise Niobrara resource, prepare for development drilling & oil production

#### **Objectives:**

- Gather technical data to design horizontal wells in 2012
- Assess Niobrara production potential
- Acquire additional acreage

#### **Appraisal Wells:**

- 3 vertical Niobrara wells
- Frac & test up to 3 zones per well
- Trial different frac treatments
- Flow tests to assess individual reservoir performance
- Comingled production

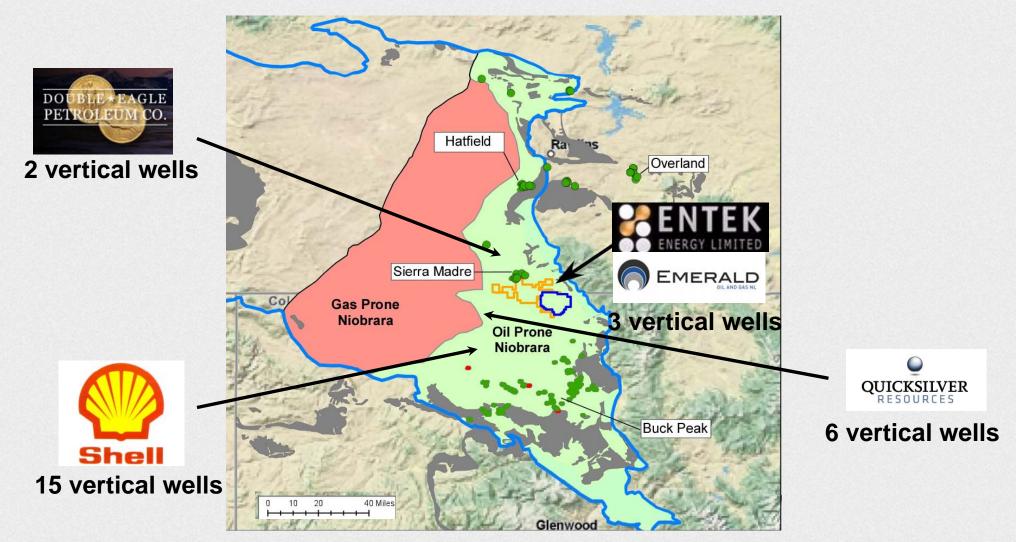
#### **Production Infrastructure:**

- Gas gathering lines
- Central production facilities
- Gas treatment plant





### **GRB 2011 Niobrara Drilling Activity**



GRB drilling success highly likely to drive acreage value up in 2011



### **18 Month GRBJV Capital Requirement**

2011 (July – Dec)	Total GRBJV	EMR (45%)
3 Vertical Niobrara wells	\$6.5	\$2.9
Production infrastructure	\$2.0	\$1.0
New acreage acquisition	<u>\$3.0</u>	<u>\$1.4</u>
	\$11.5	\$5.2
2012 (indicative only)		
New acreage acquisition	\$3.0	\$1.4
Seismic	\$3.0	\$1.4
Vertical appraisal/Horiz devel wells	\$24.0	\$10.8
CBM Well Workovers	\$0.5	\$0.2
Production Infrastructure	<u>\$5.0</u>	<u>\$2.3</u>
	\$35.5	\$16.1
Total 18 Month GRBJV Program	\$50.0	\$22.5



## Premium Shale Oil Acreage Valuations In US Capital Markets

- Investors willing to assign strong valuations for undeveloped resource acreage in high profile shale oil plays (Niobrara, Bakken, Eagleford, Permian, Utica)
- Institutions willing to pay \$/acre premium based on intangible acreage value and future reserves to fund drilling and additional acreage acquisition (blind pool financing)
- Valuations range from \$2000-\$4000 EV/Acre in US markets



### ASX Listed US Shale Players Valuation 8 July 2011

	EMR	ETE	SGY	SSN	SEA	EKA	TXN	AUT
Shale Play	Niobrara Niobrara	Krovonhogon	Bakken/	Bakken/	Eaglaford	Eagleford	Eagleford	
		NIODIara	Kreyenhagen	Niobrara	Niobrara	Eagleford	cagieroru	cagierord
Location	GRB GRB	CDD	San Joaquin	Williston/	Williston/	Texas	Texas	Texas
		GRB		GRB & DJ	DJ			
Net Acres	27,000	33,000	10,000	35,200	23,600	6,236	5,900	15,600
Share Price	0.045	0.18	0.09	0.14	0.85	0.29	0.64	3.30
Shares	785	511	345	1732	277	237	243	410
Mkt Cap	35.3	91.9	31.1	242.5	235.2	68.7	155.2	1352.6
EV	27.3	71.9 *	22.1	183.5	215.2	58.7	141.2	1277.6
EV/Acre	\$1,013	\$1,301	\$2,208	\$5,212	\$9,119	\$9,418	\$23,937	\$81,896

\* Niobrara EV only



## **Immediate Plans**

### Work closely with ETE as partner in the GRBJV

- Agree strategy to deliver max value from current assets
- Consolidate and expand GRB position with additional acreage
- Develop & execute 2011 field activity program
- Plan 2012 horizontal/vertical development program

### Explore cooperative value synergies with ETE

- Company interests and capital requirements aligned in GRBJV
- Increase asset value through development drilling
- Maximise value of future dealings with combined 100% interest
- Access premium valuation opportunities in global capital markets

