



13 October 2021

### Three Well Thorsby Leo Frac Program Commenced

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- The fracture stimulation for Leo 1, 2 & 3 wells commenced on 10 October
- Leo #2 will be fracture stimulated first, followed by Leo #1 and #3. Each well will take 2 days to frac. The wells will then be shut-in for 7 days to minimise sand flow back during production
- Flow testing of all three wells is expected to commence the last week of October
- The Leo Sparky Wells (3rd Generation) have been optimised with respect to horizontal length, and planned fracture stimulation intensity. The 3 wells have averaged ~3,720m MD (~320m longer than previous generation) and will each have ~50 fracture stages averaging 1.0 tonnes of sand per meter over the productive zone
- Each well is being fractured with approximately 6,000m<sup>3</sup> of frac fluids. Around 50% of the frac fluid is expected to be recovered (expected to take 30-60 days) before any definitive production rates will be established for each of the wells
- The frac fluids include a tracer system which will trace multiple stages of each frac. This will provide critical data on determining future frac programs in the 4<sup>th</sup> Generation wells
- These wells are anticipated to produce IP90 rates between 270-460 boe/d (80% oil)

**Jordan Kevol, Calima CEO, states that:**

*"The fracture stimulation portion of the Leo program has begun. The pumpers are rigged in, and we are pumping. The three wells will be pumped back-to-back, and if all goes well, we will be finished pumping by the weekend. Then after the shut-in period of one week, we will run pumping equipment, and open up each of the wells and begin the flow-back process. We anticipate first oil within 7-10 days, and expect to know the full potential of each well 30-60 days after initial flowback. The length of the well bore and the frac intensity has increased from historical Thorsby wells which should result in higher flow rates and EUR from these wells."*



**Calfrac Sandstorm units**

### **Leo #1-3 Wells; 100% WI**

#### **Completion style**

Each of the Leo wells were completed with ~50 frac stages spaced approximately 42m apart. The fracs are planned to have 44 tons of sand per stage with some adjustments in tonnage allocated for variations in perceived reservoir thickness, porosity, and permeability. The frac intensity will be approximately 1 ton of sand per meter of horizontal length within the portion of the wellbore that encountered the Sparky Formation. Once each frac stage has finished pumping on each of the wells, the frac interval multi-cycle sliding sleeve will be closed to allow the newly initiated fractures to “heal” around the frac sand proppant. This is a mitigating factor to ensure that the frac sand stays in the formation which helps minimize the need for future frac sand cleanouts, as well as increasing the effectiveness of the frac conductivity and production.

These 3<sup>rd</sup> Generation 1 ton per meter (t/m) frac designs represent the highest frac intensity in the Sparky wells to date. The previous second generation frac intensity averaged ~0.75t/m of sand. Additionally, the 3<sup>rd</sup> Generation Leo wells are ~320 m longer than previous generation wells.

#### **Frac tracer technology**

The frac sand will include the addition of multiple unique chemical tracers to improve understanding of the flowback characteristics of each frac stage and inter-well communication. This will provide the Company with intricate data that will contribute to frac design evolution for future 4<sup>th</sup> Generation Thorsby wells.

#### **Flowback**

After the 7-day shut-in period, each of the wells will have their multi-cycle sliding sleeve frac ports opened up, pumping equipment run, and the wells will begin the flow back period. Since large amounts of frac fluid (~6,000m<sup>3</sup>/well) are being used, it takes 30-60 days to recover enough frac fluid before the



commencement of reliable oil and gas flow rates from the Sparky Formation. Being these are the largest fracs pumped in the Thorsby field, additional time is expected before “first oil”.

### On lease tie-ins

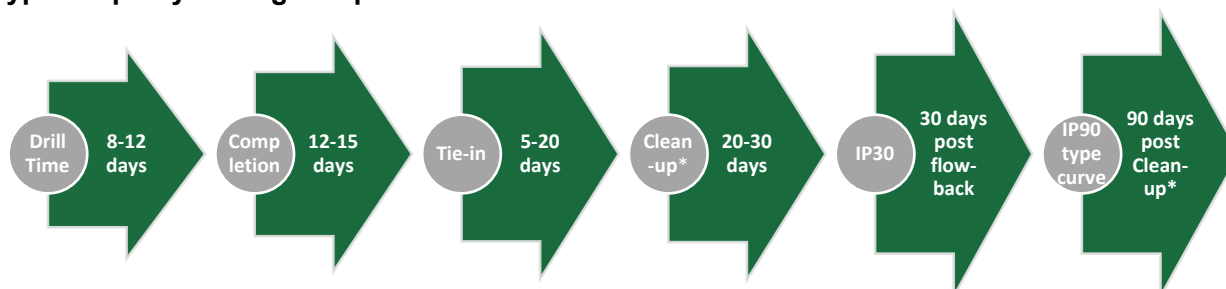
Once the Leo wells have produced enough frac fluid to start seeing true formation fluid, and related hydrocarbons, they will be temporarily shut-in to facilitate tying them in to our Thorsby oil battery. As seen in recent video footage released by the Company, each of the Leo wells are on the same pad site as the Company’s Thorsby oil processing facility. The wells will be tied into the battery as well as the gas sales line in an expedient and efficient fashion. The wells will then be brought back onto production, and the initial flowback period will commence, with all hydrocarbons going to sales.

### 30 and 90 day initial production rates

It is anticipated that initial flowback will occur by the last week of October for all three Leo wells. Once the wells are flowing back frac fluid, it is anticipated that it will take 7-10 days to see any traces of hydrocarbon. Once hydrocarbons begin to appear, and the brief shut-in period to tie-in the wells, the “IP30” period will commence. This IP30 period will continue to be a combination of both frac fluid and formation fluid (oil/gas/water). It will be in the 60-90 day period where each of the wells is anticipated to be producing at their full potential, around December 2021 / January 2022.



### Typical Sparky drilling and production timeframes



\* Clean-up is the period that water and drilling fluids are recovered from the completion and at after which time commercial hydrocarbons begin to flow from the reservoir.



## Sparky Economics

Prior to this drilling program the Company had drilled 11 Sparky wells. Of this total, the tier 1 wells (2<sup>nd</sup> Generation) averaged ~3,400m MD and 36 fracture stages with an average of 0.75 tonnes of sand per meter over the horizontal length.

The Leo 1, 2 and 3 (3<sup>rd</sup> Generation) Sparky Wells have been optimised and averaged ~3,720m MD (~320m longer) and ~50 fracture stages with an average of 1 tonne of sand per meter over the horizontal length. The optimised wells are budgeted for \$3.2 million per well and the Company anticipates IP90 rates of 270-460 boe/d (80% oil) with cumulative production of up to 462,000 boe.

Well paybacks are 5-10 months and the NPV at 10% discount is ~C\$6.5-\$9.0 million. Well economics<sup>1</sup> are summarised below:

			Sparky Type Curve Economics		
			Tier 1 \$70 WTI <sup>2</sup>	Tier 2 \$70 WTI <sup>3</sup>	Illustrative 40 T/Stage \$70 WTI <sup>4</sup>
RESOURCE	EUR – Oil & Liquids/Well	Mbbl	318	283	360
	EUR – Gas/Well	MMcf	543	412	614
	Total EUR	Mboe	409	352	462
	% Liquids (Oil & NGLs)	%	78%	80%	78%
ECONOMICS	Avg. Royalty Rate	%	17%	17%	17%
	CAPEX/Well	\$MM	C\$2.5	C\$2.5	C\$3.2
	F&D	\$/boe	C\$6.10	\$7.10	\$6.90
	BTAX IRR	%	>500%	442%	>500%
	BTAX NPV10	\$MM	C\$7.8	C\$6.5	C\$9.0
	P/I 10%	x	3.1	2.6	2.8
	Payout	Mths	5	6	5
	IP90 Oil (Wellhead)	bbl/d	336	274	460
	Netback (Year 1)	\$/boe	C\$42.00	C\$43.50	C\$42.70
	Recycle Ratio	x	6.9	6.1	6.2
	Break-even to WTI	US\$/bbl	US\$34.00	US\$35.10	US\$33.22

\* The 3 well Leo Drilling Campaign is anticipated to cost C\$10.6m. The campaign is funded from cash flow and the Company's working capital facility with National Bank of Canada. Production is anticipated to commence in December/January which will then be used to pay down the working capital facility.

## Thorsby Development Field

Thorsby provides a land base of ~108 net sections (69,120 net acres) that can be developed from multi-well pads, which minimises the environmental footprint and ensures year-round access. Oil processing facilities of 3,000 bbl/d oil capacity are currently on site. Existing Thorsby wells averaged gross production of ~780 boe/d in August 2021 (100% WI) solely from the Sparky Formation. There are 11 wells drilled to date with future well recoveries estimated at 352 - 462 mboe (80% oil).

<sup>1</sup> Refer to the Reserve Evaluation – Blackspur Oil Corp. announcement dated 2 September 2021. The Company is not aware of any new information or data that materially affects the information included in the referenced ASX announcement and confirms that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. Flat pricing: US\$70/bbl WTI, C\$2.50/GJ AEEO, US\$12/bbl WCS differential and 1.25 CAD or AUS/USD. Break-even prices include DCET and the point at which IRR is zero and it is no longer economic to drill that play type. They are calculated by sensitizing WTI while maintaining other price streams constant.

<sup>2</sup> Tier 1 are planned future wells incorporating all technical learnings over the wells drilled to date and based on best 2 wells drilled to date.

<sup>3</sup> Tier 2 adds a third well with sand issues and downtime but still consistent with all the learnings in tier 1 (away from fault).

<sup>4</sup> The illustrative curve is based on increasing the length and frac size to 1 T/m, this increase in planned on future wells.





Well inventory includes 86 net Sparky Formation and 12 net Nisku Formation wells identified with multiple pools to be delineated (27 booked Sparky locations). Selected wells demonstrated significant type curve outperformance in the Sparky Formation.

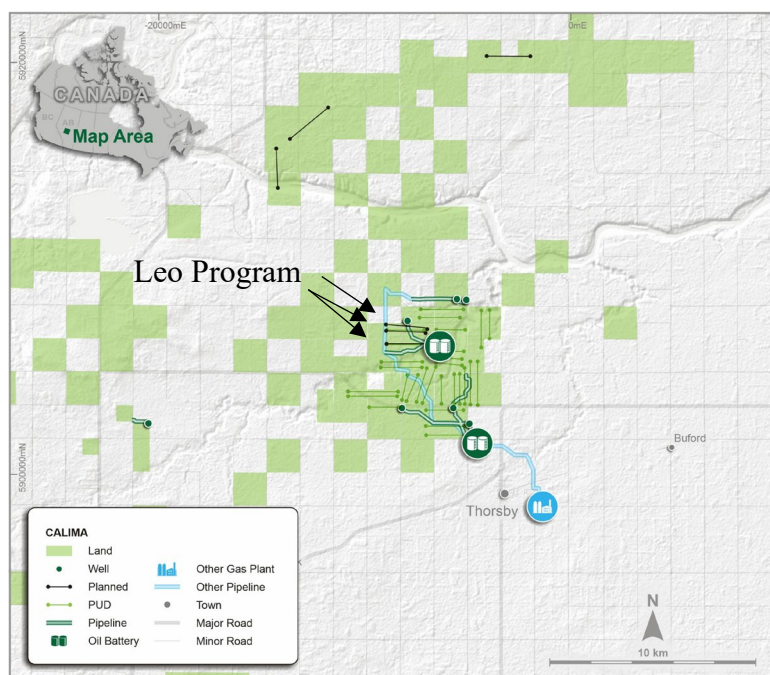


Figure 1: Thorsby Field

This release has been approved by the Board.

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### Qualified petroleum reserves and resources evaluator statement

*The petroleum reserves and resources information in this announcement in relation to Blackspur Oil Corp is based on, and fairly represents, information and supporting documentation in a report compiled by InSite Petroleum Consultants Ltd. (InSite) for the June 30, 2021 Reserves Report. InSite is a leading independent Canadian petroleum consulting firm registered with the Association of Professional Engineers and Geoscientists of Alberta. These reserves were subsequently reviewed by Mr. Graham Veale who is the VP Engineering with Blackspur Oil Corp. The InSite June 30, 2021 Reserves Report and the values contained therein are based on InSite's June 30, 2021 price deck (<https://www.insitepc.com/pricing-forecasts>). Mr. Veale holds a BSc. in Mechanical Engineering from the University of Calgary (1995) and is a registered member of the Alberta Association of Professional Engineers and Geoscientists of Alberta (APEGA). He has over 25 years of experience in petroleum and reservoir engineering, reserve evaluation, exploitation, corporate and business strategy, and drilling and completions. InSite and Mr. Veale have consented to the inclusion of the petroleum reserves and resources information in this announcement in the form and context in which it appears.*

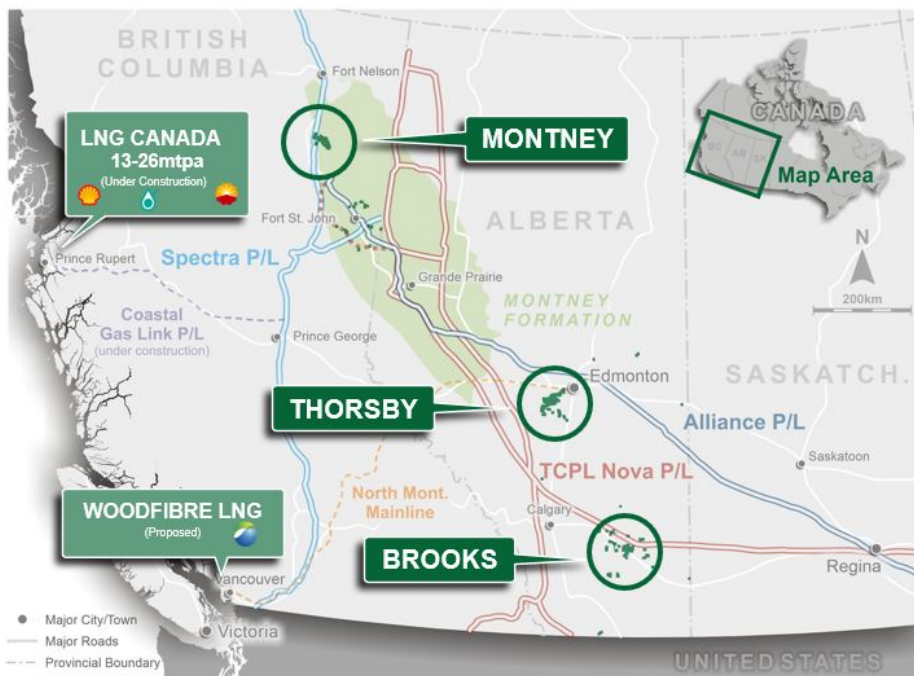
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## Calima Assets



## Forward Looking Statements

*This release may contain forward-looking statements. These statements relate to the Company's expectations, beliefs, intentions or strategies regarding the future. These statements can be identified by the use of words like "anticipate", "believe", "intend", "estimate", "expect", "may", "plan", "project", "will", "should", "seek" and similar words or expressions containing same. These forward-looking statements reflect the Company's views and assumptions with respect to future events as of the date of this release and are subject to a variety of unpredictable risks, uncertainties, and other unknowns. Actual and future results and trends could differ materially from those set forth in such statements due to various factors, many of which are beyond our ability to control or predict. These include, but are not limited to, risks or uncertainties associated with the discovery and development of oil and natural gas reserves, cash flows and liquidity, business and financial strategy, budget, projections and operating results, oil and natural gas prices, amount, nature and timing of capital expenditures, including future development costs, availability and terms of capital and general economic and business conditions. Given these uncertainties, no one should place undue reliance on any forward-looking statements attributable to Calima, or any of its affiliates or persons acting on its behalf. Although every effort has been made to ensure this release sets forth a fair and accurate view, we do not undertake any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.*

## Oil and Gas Glossary and Definitions

Term	Meaning
<b>Adjusted EBITDA:</b>	Adjusted EBITDA is calculated as net income (loss) before interest and financing expenses, income taxes, depletion, depreciation and amortisation, and adjusted to exclude certain non-cash, extraordinary and non-recurring items primarily relating to bargain purchase gains, gains and losses on financial instruments, transaction and advisory costs and impairment losses. Calima utilises adjusted EBITDA as a measure of operational performance and cash flow generating capability. Adjusted EBITDA impacts the level and extent of funding for capital projects investments or returning capital to shareholders.
<b>Adjusted working capital:</b>	Adjusted working capital is comprised of current assets less current liabilities on the Company's balance sheet and excludes the current portions of risk management contracts and credit facility draws. Adjusted working capital is utilised by Management and others as a measure of liquidity because a surplus of adjusted working capital will result in a future net cash inflow to the business which can be used for future funding, and a deficiency of adjusted working capital will result in a future net cash outflow which will require a future draw from Calima's existing funding capacity.
<b>ARO / Asset Retirement Obligation:</b>	the process of permanently closing and relinquishing a well by using cement to create plugs at specific intervals within a well bore
<b>Available funding:</b>	Available funding is comprised of adjusted working capital and the undrawn component of Blackspur's credit facility. The available funding measure allows Management and other users to evaluate the Company's liquidity.
<b>Credit Facility Interest:</b>	Borrowings under the Credit Facility incur interest at a market-based interest rate plus an applicable margin which varies depending on Blackspur's net debt to cash flow ratio. Interest charges are between 150 bps to 350 bps on Canadian bank prime borrowings



Term	Meaning
<b>CO2e:</b>	and between 275 bps and 475 bps on Canadian dollar bankers' acceptances. Any undrawn portion of the demand facility is subject to a standby fee in the range of 20 bps to 45 bps. Security for the credit facility is provided by a C\$150 million demand debenture carbon dioxide equivalent
<b>Conventional Well:</b>	a well that produces gas or oil from a conventional underground reservoir or formation, typically without the need for horizontal drilling or modern completion techniques
<b>Compression:</b>	a device or facility located along a natural gas pipeline that raises the pressure of the natural gas flowing in the pipeline, which in turn compresses the natural gas, thereby both increasing the effective capacity of the pipeline and allowing the natural gas to travel longer distances
<b>Corporate Decline:</b>	consolidated, average rate decline for net production from the Company's assets
<b>Exit Production:</b>	Exit production is defined as the average daily volume on the last week of the period
<b>Operating Income:</b>	Oil and gas sales net of royalties, transportation and operating expenses
<b>Financial Hedge:</b>	a financial arrangement which allows the Company to protect against adverse commodity price movements, the gains or losses of which flow through the Company's derivative settlements on its financial statements
<b>Free Cash Flow (FCF):</b>	represents Hedged Adjusted EBITDA less recurring capital expenditures, asset retirement costs and cash interest expense
<b>Free Cash Flow Yield:</b>	represents free cash flow as a percentage of the Company's total market capitalisation at a certain point in time
<b>Funds Flow:</b>	Funds flow is comprised of cash provided by operating activities, excluding the impact of changes in non-cash working capital. Calima utilises funds flow as a measure of operational performance and cash flow generating capability. Funds flow also impacts the level and extent of funding for investment in capital projects, returning capital to shareholders and repaying debt. By excluding changes in non-cash working capital from cash provided by operating activities, the funds flow measure provides a meaningful metric for Management and others by establishing a clear link between the Company's cash flows, income statement and operating netbacks from the business by isolating the impact of changes in the timing between accrual and cash settlement dates.
<b>Gathering &amp; Compression (G&amp;C):</b>	owned midstream expenses; the costs incurred to transport hydrocarbons across owned midstream assets
<b>Gathering &amp; Transportation (G&amp;T):</b>	third-party gathering and transportation expense; the cost incurred to transport hydrocarbons across third-party midstream assets
<b>G&amp;A:</b>	general and administrative expenses; may be represented by recurring expenses or non-recurring expense
<b>Hedged Adjusted EBITDA:</b>	EBITDA including adjustments for non-recurring and non-cash items such as gain on the sale of assets, acquisition related expenses and integration costs, mark-to-market adjustments related to the Company's hedge portfolio, non-cash equity compensation charges and items of a similar nature;
<b>Hyperbolic Decline:</b>	non-exponential with subtle multiple decline rates; hyperbolic curves decline faster early in the life of the well and slower as time increases
<b>LMR:</b>	The LMR (Liability Management Ratio) is determined by the Alberta Energy Regulator ("AER") and is calculated by dividing Blackspur's deemed assets by its deemed liabilities, both values of which are determined by the AER.
<b>LOE:</b>	lease operating expense, including base LOE, production taxes and gathering & transportation expense
<b>Midstream:</b>	a segment of the oil and gas industry that focuses on the processing, storing, transporting and marketing of oil, natural gas, and natural gas liquids
<b>Net Debt"</b>	Net debt is calculated as the current and long-term portions of Calima's credit facility draws, lease liabilities and other borrowings net of adjusted working capital. The credit facility draws are calculated as the principal amount outstanding converted to Australian dollars at the closing exchange rate for the period. Net debt is an important measure used by Management and others to assess the Company's liquidity by aggregating long-term debt, lease liabilities and working capital.
<b>NGL / Natural Gas Liquids:</b>	hydrocarbon components of natural gas that can be separated from the gas state in the form of liquids
<b>Net Debt/Adjusted EBITDA (Leverage)</b>	a measure of financial liquidity and flexibility calculated as Net Debt divided by Hedged Adjusted EBITDA
<b>Net Revenue Interest:</b>	a share of production after all burdens, such as royalty and overriding royalty, have been deducted from the working interest. It is the percentage of production that each party actually receives
<b>Operating Costs:</b>	total lease operating expense (LOE) plus gathering & compression expense
<b>Operating Netback:</b>	Operating netback is calculated on a per boe basis and is determined by deducting royalties, operating and transportation from oil and natural gas sales, after adjusting for realised hedging gains or losses. Operating netback is utilised by Calima and others to assess the profitability of the Company's oil and natural gas assets on a standalone basis, before the inclusion of corporate overhead related costs. Operating netback is also utilised to compare current results to prior periods or to peers by isolating for the impact of changes in production volumes.
<b>Physical Contract:</b>	a marketing contract between buyer and seller of a physical commodity which locks in commodity pricing for a specific index or location and that is reflected in the Company's commodity revenues
<b>Promote:</b>	Production Taxes: state taxes imposed upon the value or quantity of oil and gas produced
<b>PDP/ Proved Developed Producing:</b>	an additional economic ownership interest in the jointly-owned properties that is conveyed cost-free to the operator in consideration for operating the assets
<b>PV10:</b>	a reserve classification for proved reserves that can be expected to be recovered through existing wells with existing equipment and operating methods
<b>RBL / Reserve Based Lending</b>	a standard metric utilised in SEC filings for the valuation of the Company's oil and gas reserves; the present value of the estimated future oil and gas revenues, reduced by direct expenses, and discounted at an annual rate of 10%
<b>Royalty Interest or Royalty:</b>	a revolving credit facility available to a borrower based on (secured by) the value of the borrower's oil and gas reserves
<b>Terminal decline:</b>	Interest in a leasehold area providing the holder with the right to receive a share of production associated with the leasehold area
<b>tCO2:</b>	represents the steady state decline rate after early (initial) flush production
<b>Unconventional Well:</b>	Tonnes of Carbon Dioxide
<b>Upstream:</b>	a well that produces gas or oil from an unconventional underground reservoir formation, such as shale, which typically requires hydraulic fracturing to allow the gas or oil to flow out of the reservoir
<b>Working Capital Ratio:</b>	a segment of the oil and gas industry that focuses on the exploration and production of oil and natural gas
<b>WI/ Working Interest:</b>	The working capital ratio as the ratio of (i) current assets plus any undrawn availability under the facility to (ii) current liabilities less any amount drawn under the facilities. For the purposes of the covenant calculation, risk management contract assets and liabilities are excluded.
	a type of interest in an oil and gas property that obligates the holder thereof to bear and pay a portion of all the property's maintenance, development, and operational costs and expenses, without giving effect to any burdens applicable to the property



Abbreviation	Abbreviation meaning	Abbreviation	Abbreviation meaning
1P	proved reserves	A\$ or AUD	Australian dollars
2P	proved plus Probable reserves	C\$ or CAD	Canadian dollars
3P	proved plus Probable plus Possible reserves	US\$ or USD	United states dollars
bbl or bbls	barrel of oil	(\$ thousands)	figures are divided by 1,000
boe	barrel of oil equivalent (1 bbl = 6 Mcf)	(\$ 000s)	figures are divided by 1,000
d	suffix – per day	Q1	first quarter ended March 31 <sup>st</sup>
GJ	gigajoules	Q2	second quarter ended June 30 <sup>th</sup>
mbbl	thousands of barrels	Q3	third quarter ended September 30 <sup>th</sup>
mboe	thousands of barrels of oil equivalent	Q4	fourth quarter ended December 31 <sup>st</sup>
Mcf	thousand cubic feet	YTD	year-to-date
MMcf	million cubic feet	YE	year-end
PDP	proved developed producing reserves	H1	six months ended June 30 <sup>th</sup>
PUD	Proved Undeveloped Producing	H2	six months ended December 31 <sup>st</sup>
C	Contingent Resources – 1C/2C/3C – low/most likely/high	B	Prefix – Billions
Net	Working Interest after Deduction of Royalty Interests	MM	Prefix - Millions
NPV (10)	Net Present Value (discount rate), before income tax	M	Prefix - Thousands
EUR	Estimated Ultimate Recovery per well	/d	Suffix – per day
WTI	West Texas Intermediate Oil Benchmark Price	bbl	Barrel of Oil
WCS	Western Canadian Select Oil Benchmark Price	boe	Barrel of Oil Equivalent (1bbl = 6 mscf)
1P or TP	Total Proved	scf	Standard Cubic Foot of Gas
2P or TPP	Total Proved plus Probable Reserves	Bcf	Billion Standard Cubic Foot of Gas
3P	Total Proved plus Probable plus Possible Reserves	tCO <sub>2</sub>	Tonnes of Carbon Dioxide
EBITDA	Earnings before interest, tax, depreciation, depletion and amortisation	OCF	Operating Cash Flow, ex Capex
Net Acres	Working Interest	E	Estimate
IP24	The peak oil production rate over 24 hours of production	CY	Calendar Year
IP30/90	Average oil production rate over the first 30/90 days		