



1 November 2021

Thorsby Leo Update – Three well Frac Program Completed- Flowback to commence

- The fracture stimulation program for the Leo 1, 2 & 3 wells has been successfully completed
- The wells were shut-in for a minimum 7 days post-frac to allow the frac stages to heal
- All three wells have now had their sliding sleeve frac ports mechanically opened, and are awaiting the installation of pumping equipment, and on-lease tie-in
- The Leo Sparky Wells are anticipated to be tied-in and pumping by mid-November
- Each well was pumped with approximately 6,000m³ of frac fluids. Around 50% of the frac fluid is expected to be recovered (anticipated to take 30-60 days) before stable production rates can be established for each of the wells
- These wells are anticipated to produce IP90 rates between 270-460 boe/d

Jordan Kevol, Calima CEO, states that:

“The fracture stimulation of the Leo wells went off without a hitch. Every bit of sand that was programmed to be placed, was successfully placed. The three wells were pumped back-to-back, on time and on budget. After the shut-in period of one week, each of the wells multiple frac ports were opened, and will now begin the flow-back process as soon as downhole pumping equipment is installed and on-lease tie-ins are completed. We anticipate seeing first oil within 7-10 days of pumping.”



Thorsby 16-5 Battery and Leo Frac Operation



Final Data Van Plot at the Successful Conclusion of the Leo Frac Campaign

Leo #1-3 Wells; 100% WI

Completion style

Each of the Leo wells were completed with ~50 frac stages spaced approximately 42m apart and ~44 tons of sand per stage. The frac intensity is equal to approximately 1 ton of sand per meter of horizontal length within the portion of the wellbore that encountered Sparky Formation.

These 3rd Generation 1.0 ton per meter (t/m) frac designs represent the highest frac intensity in the Calima Sparky wells to date. The previous 2nd Generation frac intensity averaged ~0.75 t/m of sand. Additionally, the 3rd Generation Leo wells are ~320 m longer than previous generation wells.

Flowback

After finishing pumping each frac stage, the frac port sliding sleeves were closed to allow the newly initiated fractures to “heal” around the frac sand. This is a mitigating factor to ensure the frac sand remains in the formation increasing the effectiveness of the frac conductivity and minimizing the need for future wellbore clean-outs.

After the 7-day shut-in period, each of the wells has now had their frac ports opened. The next step is to run downhole pumping equipment, and tie the wells into the battery, which is on-lease. Since large amounts of frac fluid (~6,000m³/well) were used, it will take 30-60 days to recover sufficient frac fluid prior to the commencement of stable oil and gas flow rates from the Sparky Formation. Being that these are the largest fracs to date pumped in the Thorsby field, additional time is expected before “first oil”.

30 and 90 day initial production rates

It is anticipated that initial flowback will occur by mid-November for all three Leo wells. Once the wells are flowing back frac fluid, it is anticipated it will take 7-10 days to see the first traces of hydrocarbon. Once hydrocarbons appear and the well is cleaned up, the “IP30” period will commence. This IP30 period will still be a combination of both frac fluid and formation fluid

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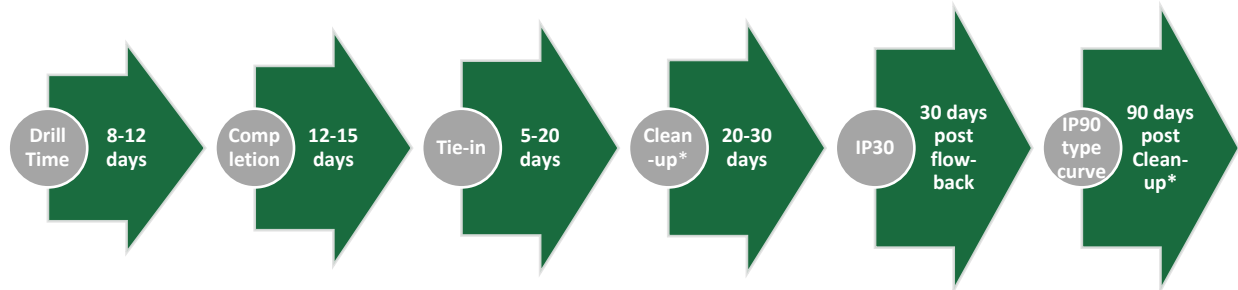
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(oil/gas/water). It will be in the 60-90 day period where each of the wells are anticipated to be producing at their full potential, mid-December 2021 to mid-February 2022.

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. Time estimates do not account for time waiting on service availability.

Sparky Economics

Prior to this drilling program the Company had drilled 11 Sparky wells. Of this total, the tier 1 wells (2nd 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 per well cost to drill, equip, and tie-in averaged \$2.5 million.

The Leo 1, 2 and 3 (3rd Generation) Sparky Wells have been optimised and averaged ~3,720m MD (~320m longer) and ~50 fracture stages with an average of 1.0 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. Type curve well paybacks are 5-10 months from the time the initial drilling capital is spent, and the NPV at a 10% discount rate is ~C\$6.5-\$9.0 million. Well economics¹ are summarised below:

		Sparky Type Curve Economics			
		Tier 1 \$70 WTI ²	Tier 2 \$70 WTI ³	Illustrative 40 T/Stage \$70 WTI ⁴	
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	

This release has been approved by the Board.

¹ 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. Payout is calculated from when the initial drilling capital is spent.

² 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.

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

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



For further information visit www.calimaenergy.com or contact:

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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.

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.

Oil and Gas Glossary and Definitions

Term	Meaning
Adjusted EBITDA:	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.
Adjusted working capital:	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.
ARO / Asset Retirement Obligation:	the process of permanently closing and relinquishing a well by using cement to create plugs at specific intervals within a well bore
Available funding:	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.
Credit Facility Interest:	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 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
CO2e:	carbon dioxide equivalent
Conventional Well:	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
Compression:	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
Corporate Decline:	consolidated, average rate decline for net production from the Company's assets

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Term	Meaning
Exit Production:	Exit production is defined as the average daily volume on the last week of the period
Operating Income:	Oil and gas sales net of royalties, transportation and operating expenses
Financial Hedge:	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
Free Cash Flow (FCF):	represents Hedged Adjusted EBITDA less recurring capital expenditures, asset retirement costs and cash interest expense
Free Cash Flow Yield:	represents free cash flow as a percentage of the Company's total market capitalisation at a certain point in time
Funds Flow:	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.
Gathering & Compression (G&C):	owned midstream expenses; the costs incurred to transport hydrocarbons across owned midstream assets
Gathering & Transportation (G&T):	third-party gathering and transportation expense; the cost incurred to transport hydrocarbons across third-party midstream assets
G&A:	general and administrative expenses; may be represented by recurring expenses or non-recurring expense
Hedged Adjusted EBITDA:	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;
Hyperbolic Decline:	non-exponential with subtle multiple decline rates; hyperbolic curves decline faster early in the life of the well and slower as time increases
LMR:	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.
LOE:	lease operating expense, including base LOE, production taxes and gathering & transportation expense
Midstream:	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
Net Debt"	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.
NGL / Natural Gas Liquids:	hydrocarbon components of natural gas that can be separated from the gas state in the form of liquids
Net Debt/Adjusted EBITDA (Leverage)	a measure of financial liquidity and flexibility calculated as Net Debt divided by Hedged Adjusted EBITDA
Net Revenue Interest:	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
Operating Costs:	total lease operating expense (LOE) plus gathering & compression expense
Operating Netback:	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.
Physical Contract:	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 Production Taxes: state taxes imposed upon the value or quantity of oil and gas produced
Promote:	an additional economic ownership interest in the jointly-owned properties that is conveyed cost-free to the operator in consideration for operating the assets
PDP/ Proved Developed Producing:	a reserve classification for proved reserves that can be expected to be recovered through existing wells with existing equipment and operating methods
PV10:	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%
RBL / Reserve Based Lending	a revolving credit facility available to a borrower based on (secured by) the value of the borrower's oil and gas reserves
Royalty Interest or Royalty:	Interest in a leasehold area providing the holder with the right to receive a share of production associated with the leasehold area
Terminal decline:	represents the steady state decline rate after early (initial) flush production
tCO2:	Tonnes of Carbon Dioxide
Unconventional Well:	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
Upstream:	a segment of the oil and gas industry that focuses on the exploration and production of oil and natural gas
Working Capital Ratio:	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.
WI/ Working Interest:	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
bb1 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 st



GJ	gigajoules	Q2	second quarter ended June 30 th
mbbl	thousands of barrels	Q3	third quarter ended September 30 th
mboe	thousands of barrels of oil equivalent	Q4	fourth quarter ended December 31 st
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 th
PUD	Proved Undeveloped Producing	H2	six months ended December 31 st
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	tCO₂	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		