



CARDINAL
ENERGY LTD.

TSX: CJ

June 2021

Corporate and Venturion Acquisition Presentation



2021 Q1 Highlights



- ❑ Generated \$16.1 million of adjusted funds flow, an 8% increase over the same period in 2020 and a 19% increase over the prior quarter. Excluding realized hedging losses, adjusted funds flow was \$30 million;
- ❑ Maintained discipline while executing a \$9.5 million capital program focused on asset base optimization which included a minor consolidating acquisition of light oil production which closed at the end of March;
- ❑ Demonstrated the continued resilience of our asset base with average production of 18,385 boe/d in the quarter;
- ❑ Reduced net debt by \$28.4 million in the quarter or 11% from year-end 2020. Net debt has decreased by \$55.4 million or 20% as compared to the first quarter of 2020;
- ❑ Subsequent to the end of the first quarter, Cardinal completed the annual renewal of our \$225 million credit facility extending the maturity date to May 2023.

Q1 2021 Highlights



		Q4 2020	2020	Q1 2021
Production	Boe/d	18,625	18,442	18,385
Adjusted funds flow	\$ mm	13.6	43.8	16.1
Basic and diluted per share	(\$ per share)	0.12	0.39	0.12
Net bank debt	\$ mm		202.4	201.6
Convertible debentures	\$ mm		28.2	-
Secured notes	\$ mm		16.2	16.8
Net debt	\$ mm		246.8	218.4
Capital expenditures	\$ mm	3.6	31.5	9.5
ARO expenditures	\$ mm	0.6	2.8	1.7

2021 Capital Budget



Capital Category	2021 Original Budget (\$mm)	May Updated Budget (\$mm)	Change (\$mm)
Drilling Program (8 wells)	-	11.3	11.3
Pipeline/Facility Maintenance and Optimization	15.6	17.8	2.2
Recomplete + Workovers	8.1	9.8	1.7
Corporate/Acquisitions/Other	3.1	7.4	4.3
	26.8	46.3	19.5
Venturion Acquisition	-	47.5	47.5
	26.8	93.8	67.0

Assumptions and Sensitivities



2021 Budget Assumptions			
		Original Budget	Revised Budget
WTI	\$ US/bbl	52.00	60.00
WCS Differential	\$ US/bbl	(13.50)	(11.00)
MSW Differential	\$ US/bbl	(5.50)	(4.00)
Fx rate	US/CAD	0.78	0.79
AECO	\$CAD/mcf	2.57	2.58

2021 Sensitivities	
	Adjusted Funds Flow (\$ mm)
Δ US\$1 WTI	3.7
Δ US\$1 WCS Differential	2.6
Δ US\$1 MSW Differential	1.2
Δ \$0.01 Fx rate	2.3



Venturion Acquisition Highlights

- ❑ ~\$47.5 MM purchase price, funded through:
 - the issuance of 6.3 mm shares
 - \$12.5 MM second lien note
 - Existing bank facility
- ❑ ~2400 boe/d, 83% liquids
 - Low decline production under existing water floods
- ❑ 7.5 MM Boe of PDP reserves
 - Replaces ~1.1x Cardinal's 2021 forecasted production on a PDP basis
- ❑ Strong Alberta LMR of 5.3x
- ❑ 16% accretive to Cardinal's 2021 forward forecasted adjusted funds flow per share
- ❑ Increases Q4 production forecast to 21,500 boe/d
- ❑ Decreases net debt to forecasted Q4 annualized adjusted funds flow to 1.0x
- ❑ Closing expected on or before July 15, 2021

2021 Budget



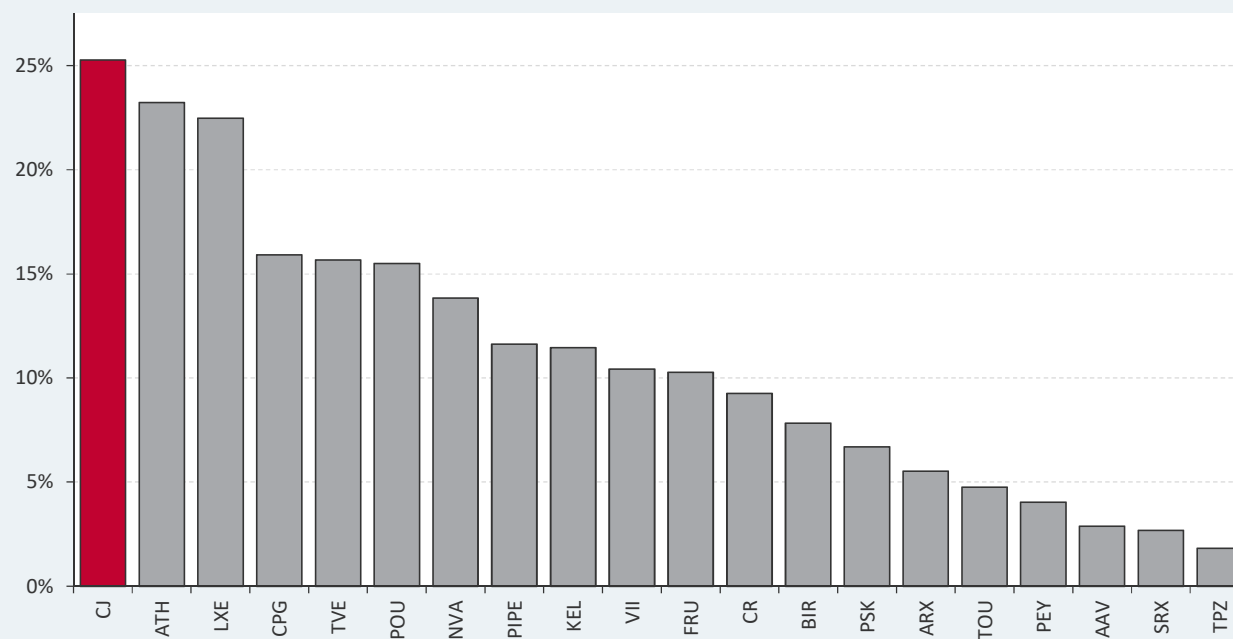
		Original Budget ⁽¹⁾	Revised Budget ⁽¹⁾	Revised Budget with Venturion Acquisition
Production	Boe/d	17,751	18,594	19,800
Adjusted funds flow	\$ mm	74.8	108.8	121.9
Basic per share	(\$ per share)	0.61	0.77	0.84
Diluted per share	(\$ per share)	0.55	0.70	0.76
Net bank debt	\$ mm	161.2	149.7	153.1
Convertible debentures	\$ mm	28.2	-	-
Secured notes	\$ mm	19.0	19.0	32.1
Net debt	\$ mm	208.4	168.7	185.2
<i>Net Bank debt repayment</i>	<i>\$ mm</i>	<i>41.0</i>	<i>52.6</i>	<i>49.2</i>
Net debt to adjusted funds flow		2.8	1.6	1.5
Capital expenditures	\$ mm	26.7	46.3	93.8
ARO expenditures	\$ mm	5.0	5.0	5.5

2021 Current Hedging



Product	Q2	Q3	Q4
WTI			
- Volume (bbl/d)	6,000	2,500	1,500
- Avg Price (CAD\$)	\$56.42	\$57.10	\$55.83
- % of production	38%	16%	10%
WCS Differential			
- Volume (bbl/d)	2,000	-	-
- Avg Price (CAD\$)	(\$16.18)	-	-
- % of production	24%	-	-
Natural Gas			
- Volume (mcf/d)	11,000	11,000	11,000
- Avg Price (CAD\$)	\$2.40	\$2.64	\$2.64
- % of production	81%	84%	84%

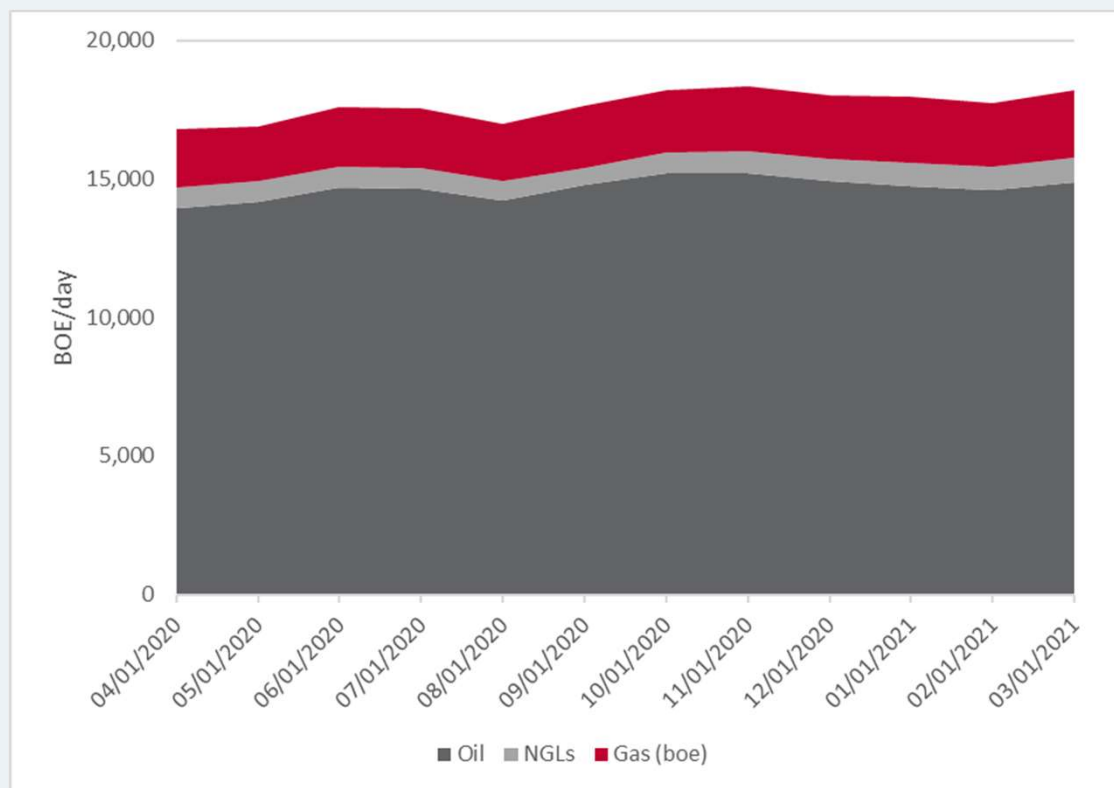
Significant Torque to Oil Prices



% change in 2021 estimated cash flow (+\$5/bb change in WTI).

Source: RBC Capital Markets

Corporate Production



- No new wells drilled since Q1 2020
- Predictable production with very low decline
- Positive impact of R&M initiatives

North Operating Area

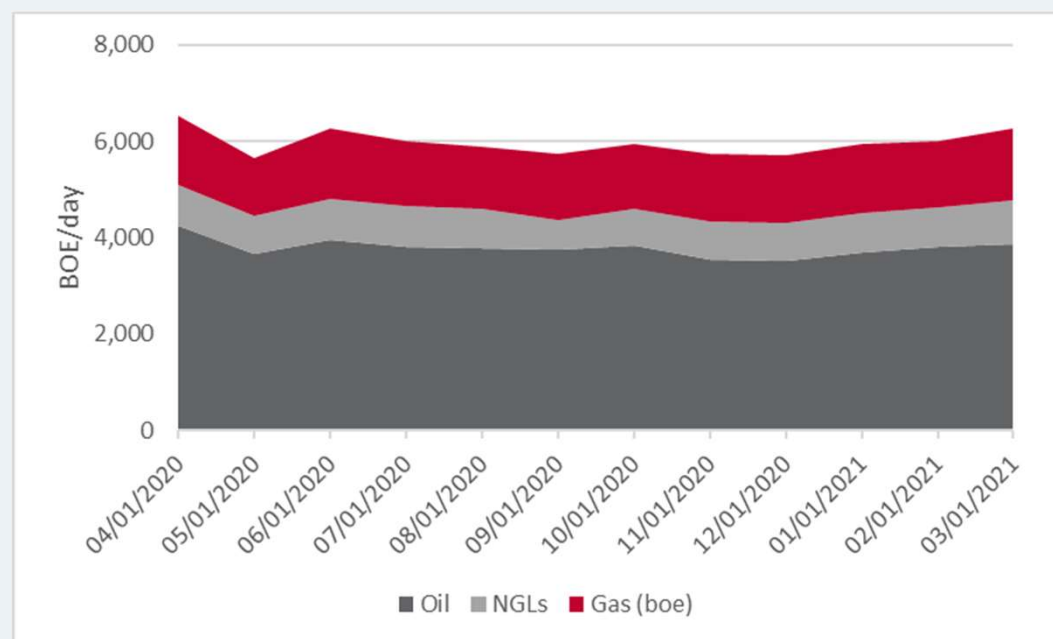


2021 Forecast – Including Venturion Assets

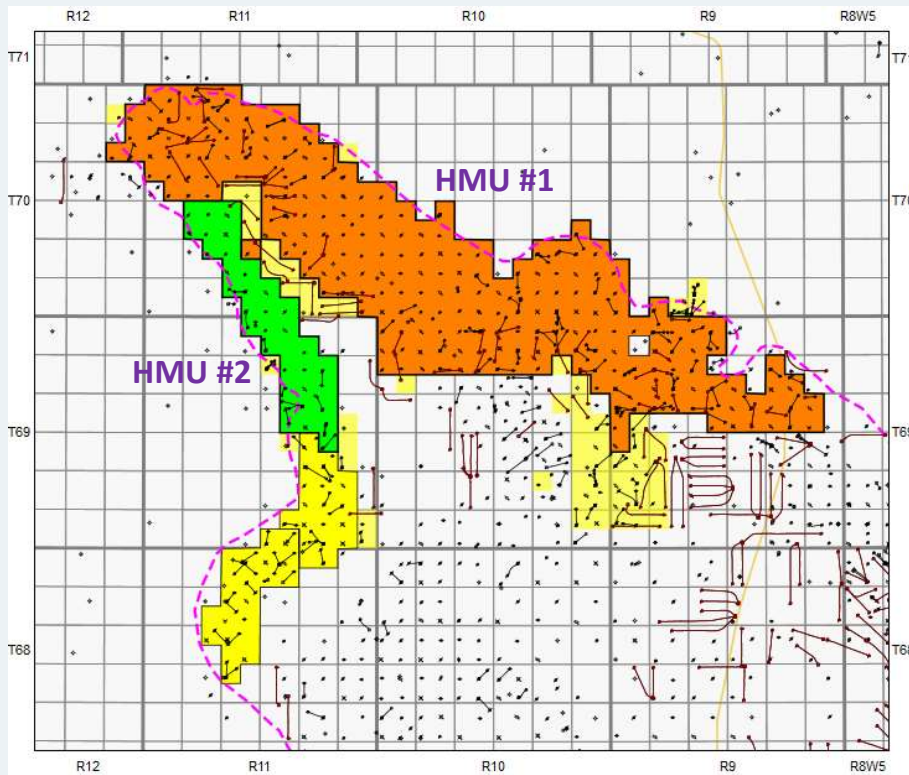
Oil Price (USD/bbl)	\$60
NOI	\$39.8
FCF	\$31.3

- ❑ House Mountain/Mitsue
 - Legacy water flood supported low decline light oil
 - 2022 Clearwater activity
- ❑ Grande Prairie
 - Long term Dunvegan and Charlie Lake development
- ❑ Venturion (Mica, Worseley)
 - ~ 700 boe/d current production
 - Under existing water flood

2021 Average Production: 6,300 boe/d

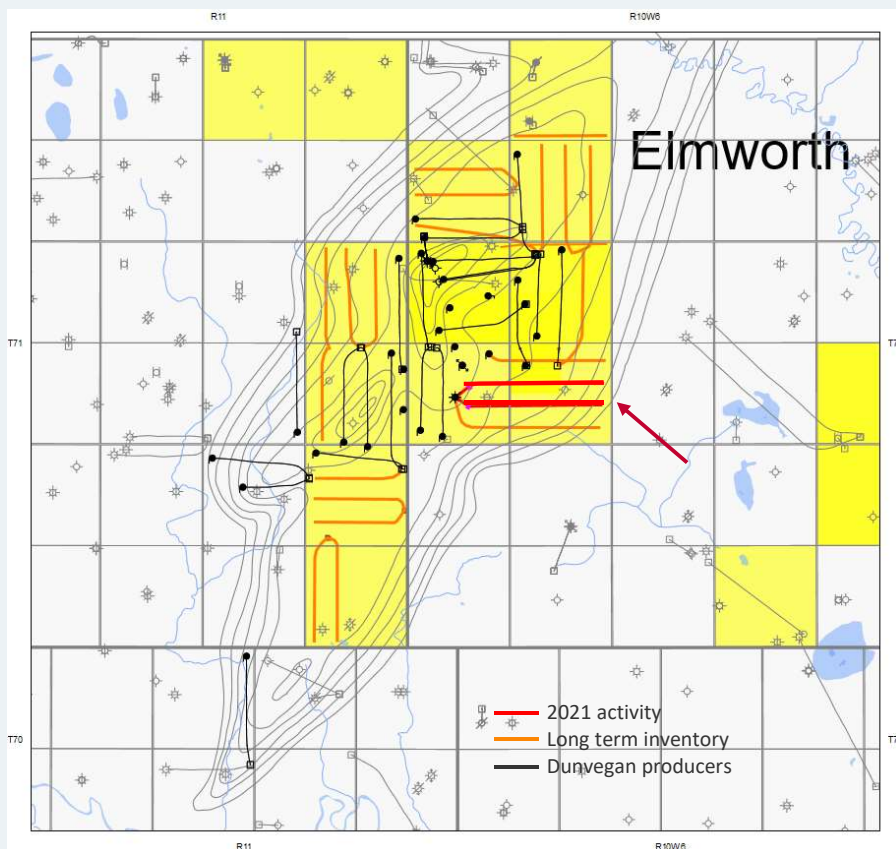


North – House Mountain Acquisition



- ❑ Low decline, long life, high netback light oil
- ❑ Q1 Acquisition interests in 2 operated House Mountain units
 - HMU#1 : from 56.6% to 65.9% (+9.2%)
 - HMU#2 : from 61.7% to 87.0% (+21.3%)
 - Net production +175 bbls/d
 - PDP reserves +855 mboe

North - Elmworth – Dunvegan Light Oil Development



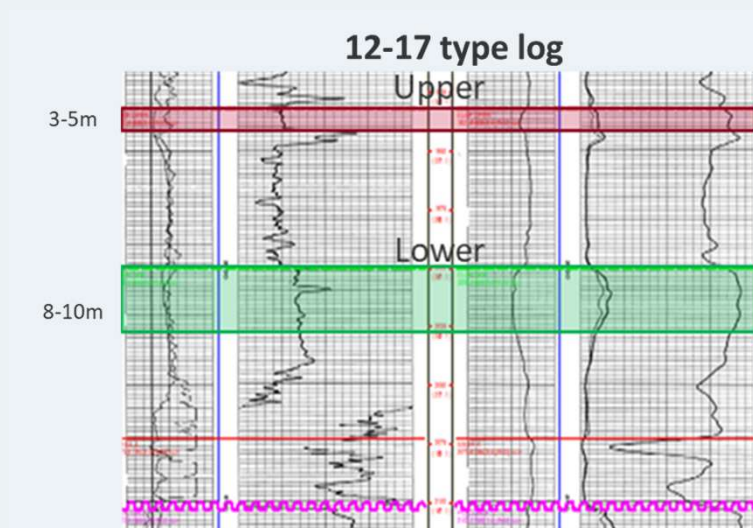
- ❑ Well defined, shallow (1250m) Dunvegan sandstone
- ❑ Strong results from most recent drilling programs
- ❑ 2 wells planned for 2H 2021 (50% wi)

Economic Summary \$60US/bbl WTI, \$2.80/mcf AECO	Per Well
Capex (DCET)	\$2.4MM
IP365 (boepd)	125
EUR (Mboe)	266
IRR	77%
Payout (years)	1.4

North - Nipisi Clearwater Conventional Heavy Oil



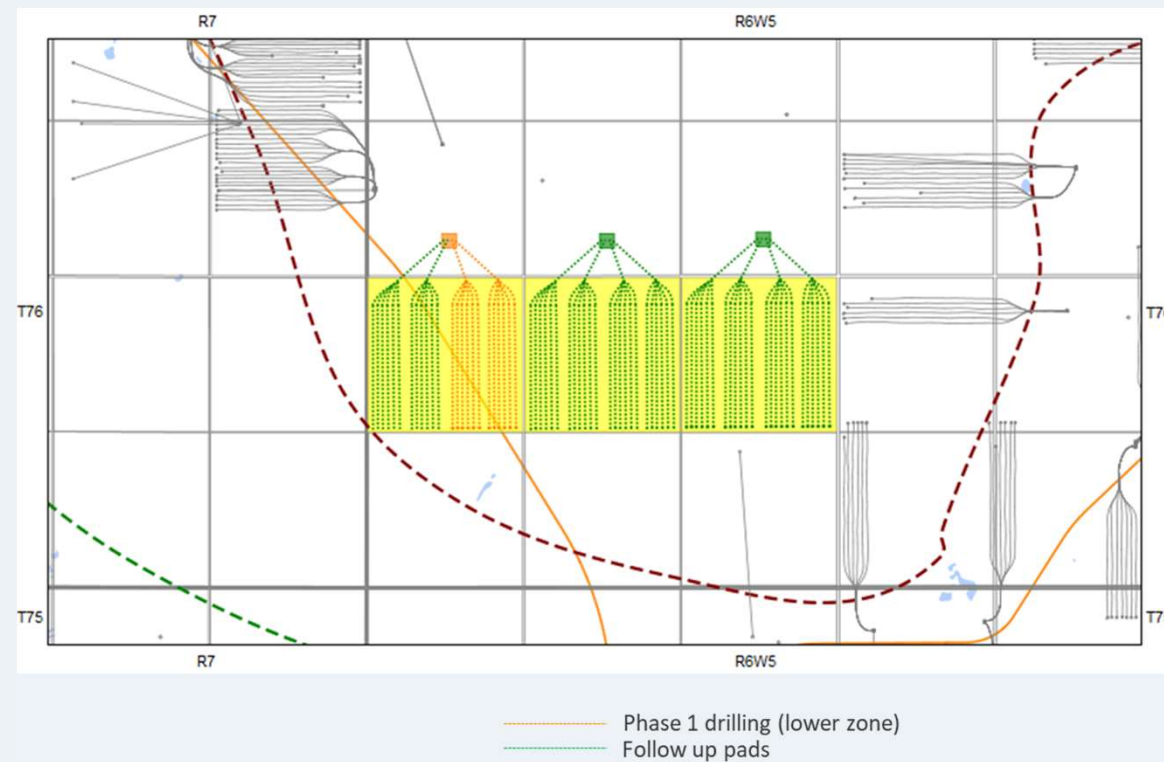
- Evaluating first block to develop in 2022



North - Nipisi Clearwater Upcoming Activity



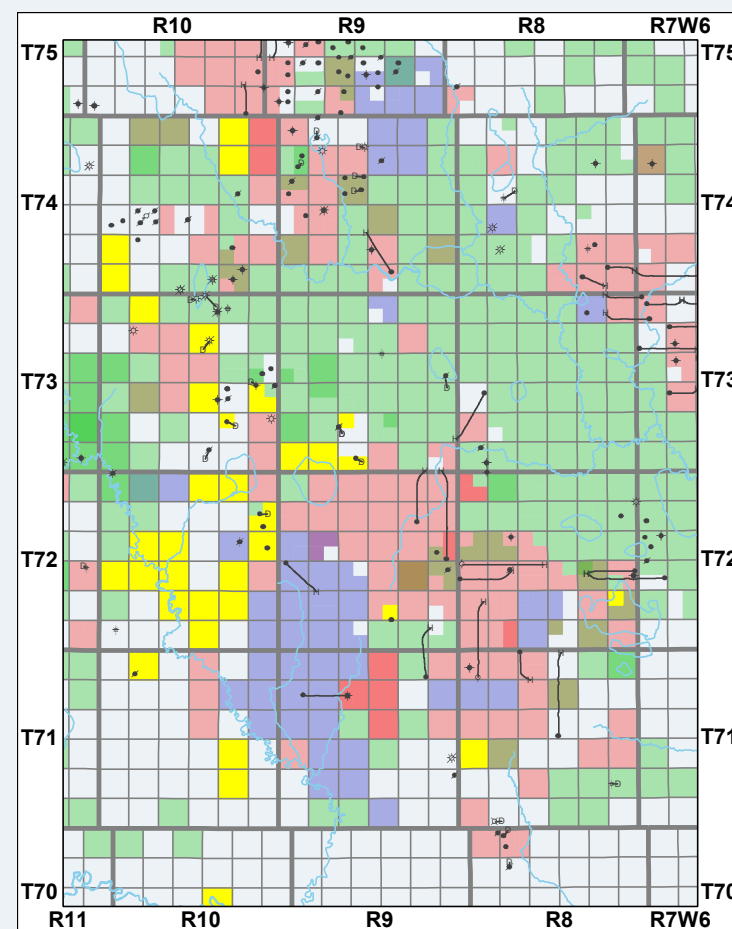
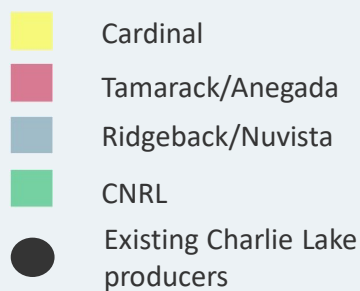
- ❑ Initial Cardinal Clearwater activity currently planned for 2022
- ❑ Up to 12 potential 4-6 leg Hz multilaterals per zone in first block to be developed
- ❑ 500+ bbls/d long term sustainable production potential
- ❑ Strong primary development economics
- ❑ Close to Mitsue infrastructure potential synergies



North – Charlie Lake Long Term Potential



- ❑ Cardinal Lands are located offsetting recent industry activity
- ❑ 15,800 gross acres (~70% average working interest)
- ❑ No near term land expiries
- ❑ Legacy vertical and horizontal producers on and/or offsetting Cardinal lands
- ❑ Bypass pay on vertical wells on land base
- ❑ 2022-23 potential activity



n.b. land positions based upon publicly available data

Central Operating Area

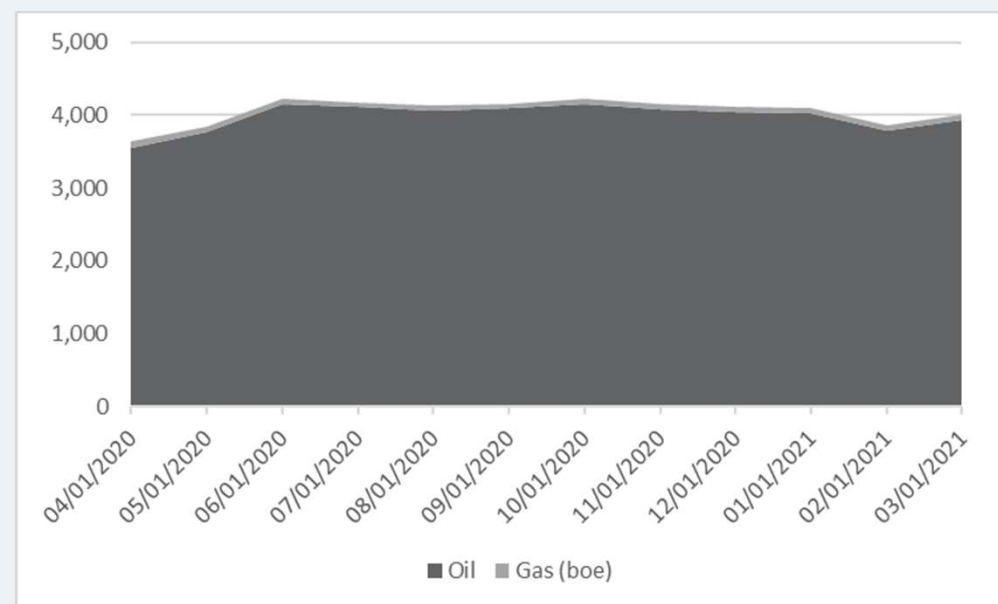


2021 Forecast - Including Venturion Assets

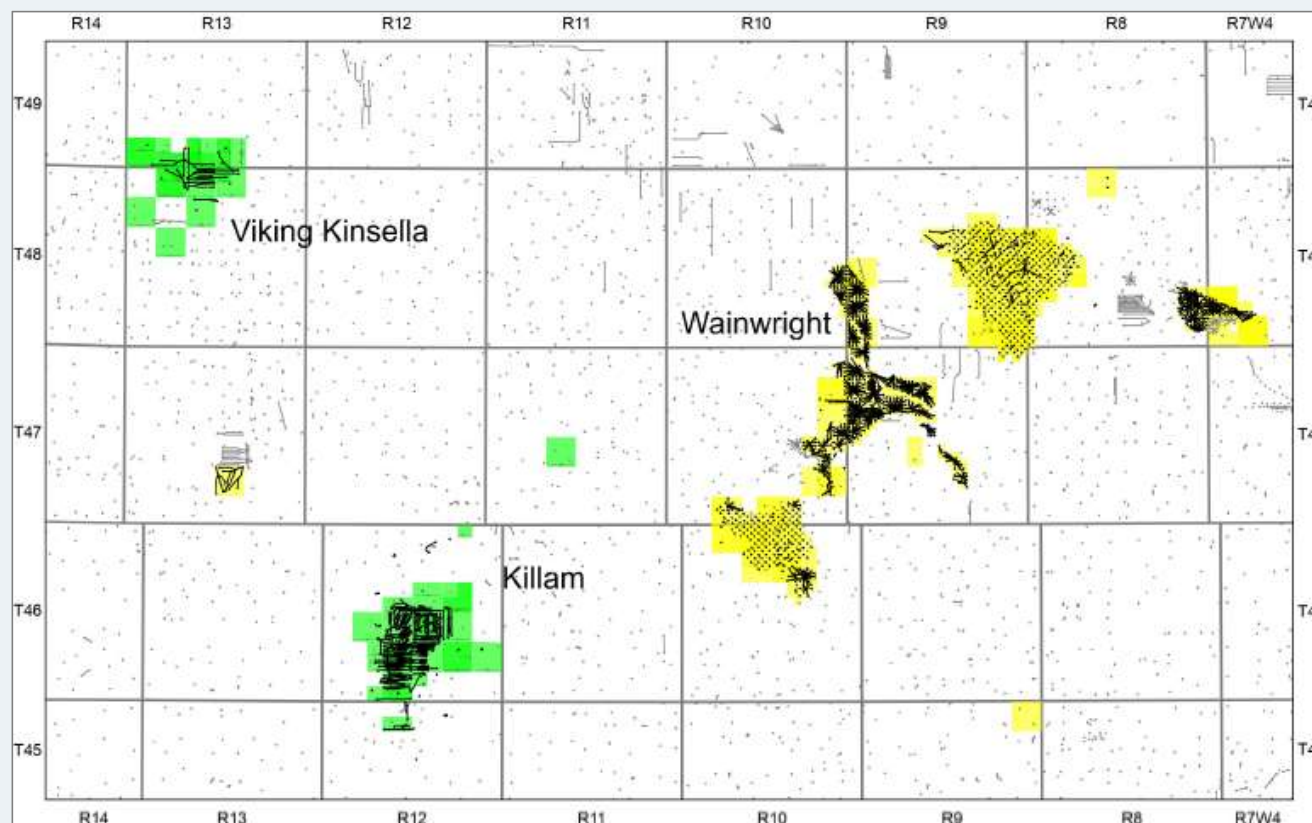
Oil Price (USD/bbl)	\$60
NOI	\$56.7
FCF	\$47.8

- Legacy water flood supported conventional medium and heavy oil
- Ongoing R&M investment
- Secondary zone development potential

2021 Average Production: 5,450 boe/d



Central District - Venturion Acquisition

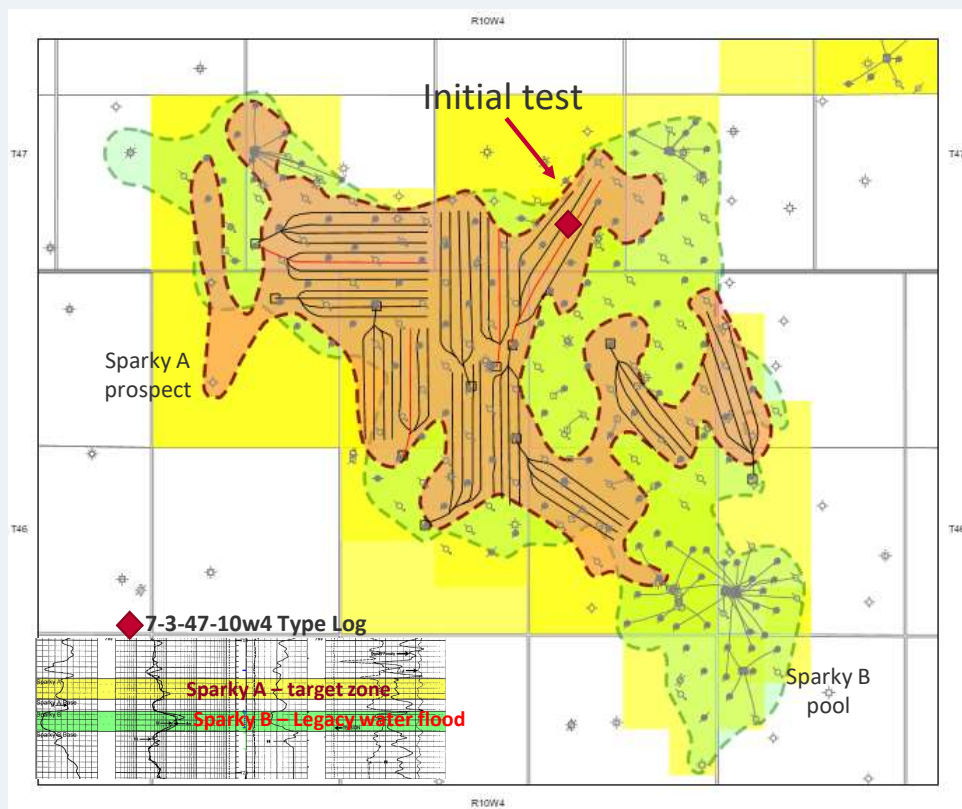


Venturion Assets

- ☐ Synergistic with existing Cardinal operations at Wainwright
- ☐ Potential future operating cost efficiencies
- ☐ Current production ~1700 boe/d
- ☐ Horizontally developed under water flood
- ☐ Optimization and infill drilling upside

Cardinal
 Venturion

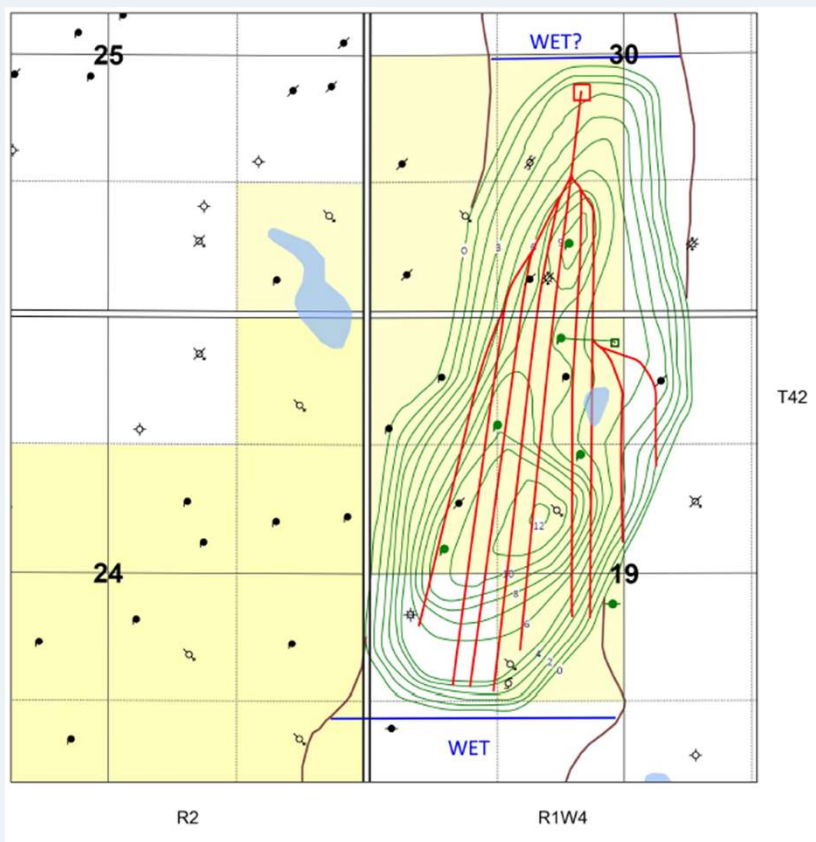
Central – Irma - Sparky A Secondary Zone Development



	SPARKY B	SPARKY A
Area (ha)	~1400	~750
Avg. Net Pay (m)	~3.0	~2.5
Avg. Porosity (%)	~28%	~25%
OOIP (MMbbls) (internal estimate)	~41.9	~11.5
Cum Prod (MMbbls) (through 2021/02)	~19.1	-
Current Production (barrels per day)	~500	-

- ❑ Sparky A has similar reservoir characteristics to recently developed competitor activity
- ❑ Multilateral development – 1st drill 2H 2021
- ❑ 12 potential locations
- ❑ True half cycle with legacy infrastructure in operation
- ❑ Associated positive impact on legacy field operations

Central - Chauvin Rex Channel



- ❑ Well defined productive Rex channel
- ❑ 9 leg multilateral planned
 - 8 mmbo in place
 - 220 mbo recovered to date
 - Current aggregate production : ~22 bbls/d
- ❑ Analogous to recent 2016-2020 competitor activity

Economic Summary \$60US/bbl WTI, \$2.80/mcf AECO	Rex Channel	Irma Sparky A
Capex (DCET)	\$1.3MM	\$1.2MM
IP365 (boepd)	136	87
EUR (Mboe)	140	83
IRR	228%	176%
Payout (years)	0.7	0.8

South Operating Area

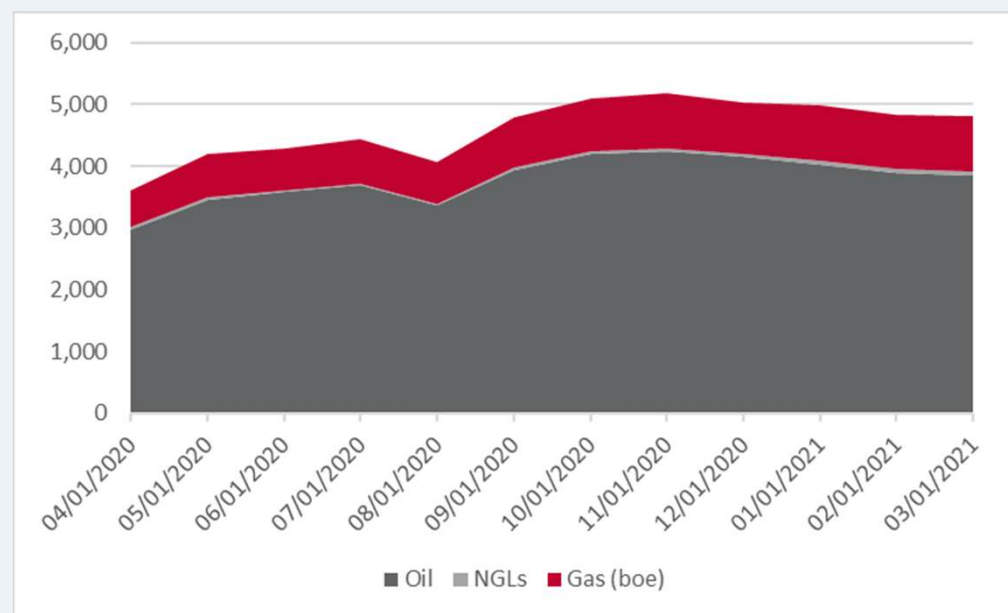


2021 Forecast

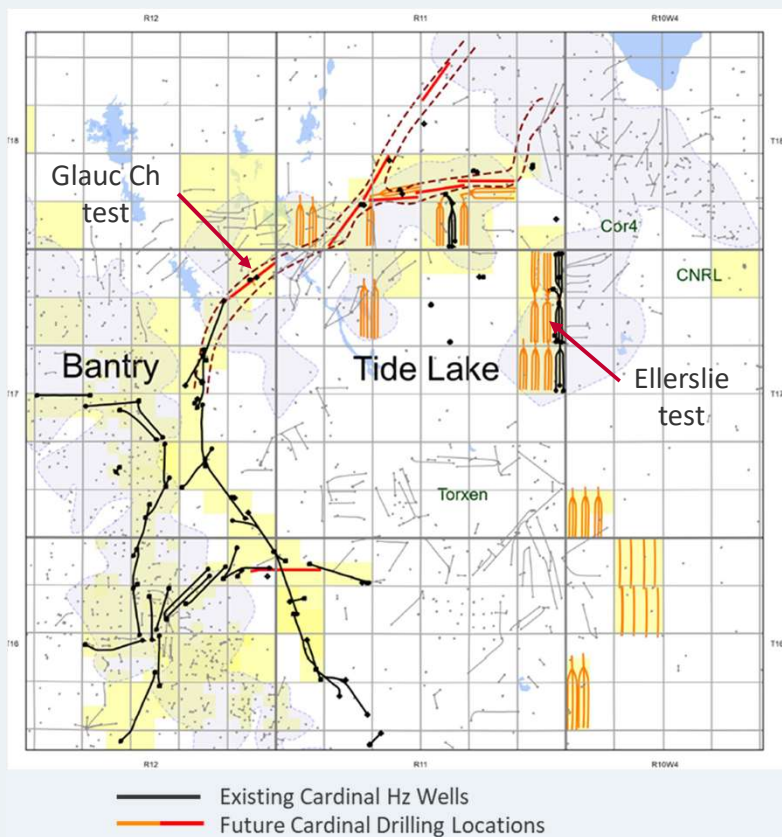
Oil Price (USD/bbl)	\$60
NOI	\$46.2
FCF	\$31.8

- Conventional medium and heavy oil and natural gas
- Multiple high deliverability locations identified for future development

2021 Average Production: 5,000 boe/d



South – Bantry, Tide Lake, Duchess Ongoing Development



- 2021 2H planned activity – 1 Tide Lake Ellerslie hz, 1 Glauc channel

Economic Summary \$60US/bbl WTI, \$2.80/mcf AECO	Glauc Ch 9-36	Ellerslie 2-25
Capex (DCET)	\$2.0MM	\$1.6MM
IP365 (boepd)	199	198
EUR (Mboe)	244	236
IRR	87%	306%
Payout (years)	1.1	0.6

- 2022 potential activity at Tide Lake, Duchess, Alderson
- Additional inventory across asset base in multiple zones

Saskatchewan Operating Area - Midale

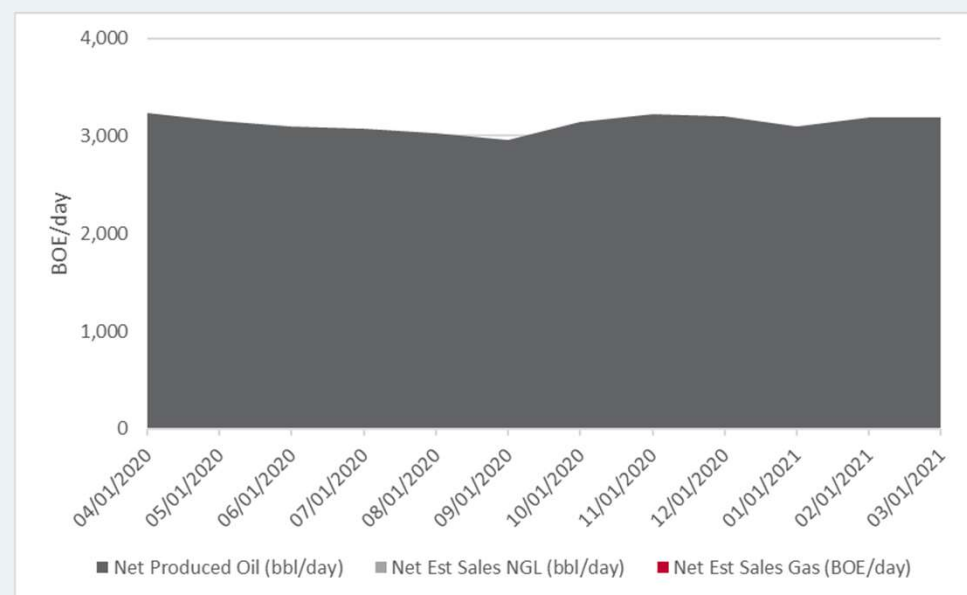


2021 Forecast

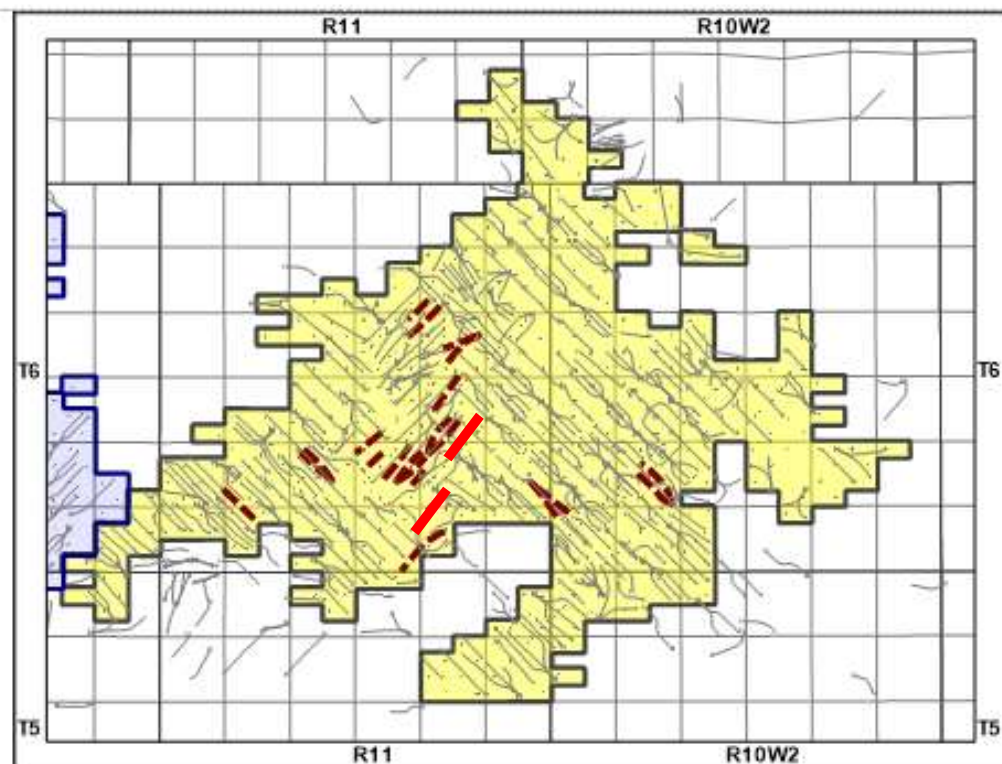
Oil Price (USD/bbl)	\$60
NOI	\$37.0
FCF	\$26.7

- Long term very low decline oil production
- Established CCS-EOR CO₂ flood over ~1/3 of asset
- Material CO₂ Sequestration ~ 5 MT to date, >200 kT annually

2021 Average Production: 3,050 bo/d



Midale – Initiate Phase 1 Development Plan



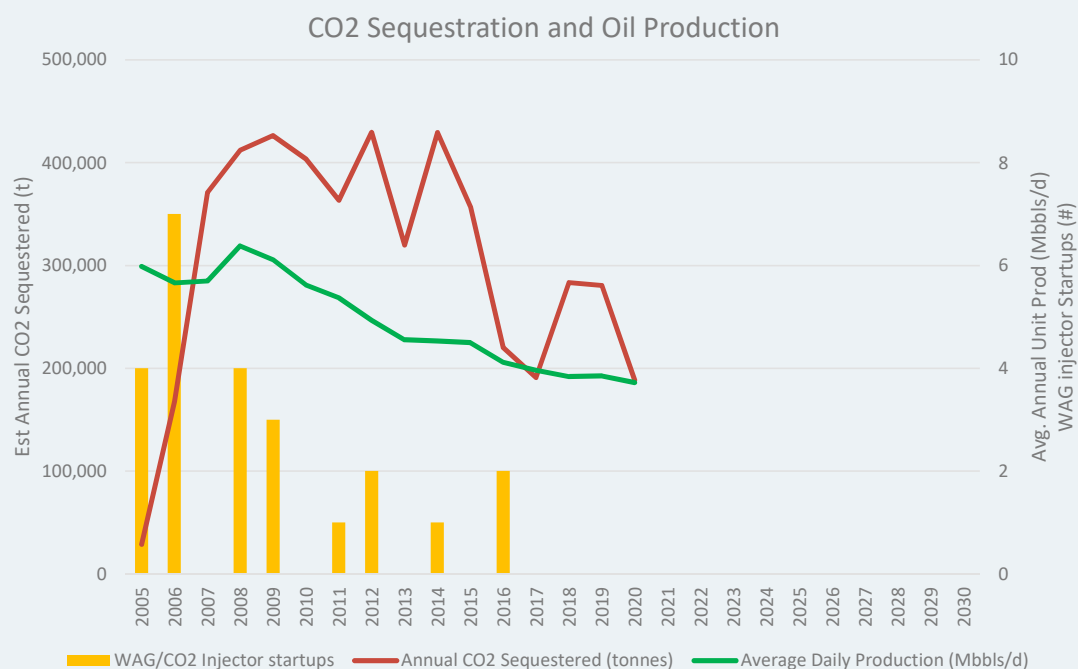
2021 Drills

Full phase 1 development

- Drill 2 WAG injectors targeted in under pressured Marly zone within existing EOR patterns

Economic Summary \$60US/bbl WTI, \$2.80/mcf AECO	Per Well
Capex (DCET) Gross	\$1.7MM
Peak IP365 (boepd)	99
EUR (Mboe)	234
IRR	76%
Payout (years)	2.0

Midale – Carbon Sequestration / CO2 Rollout



n.b. each new WAG injector is forecasted to inject ~22,000 tonnes of CO2 in year 1, over 200,000 tonnes in its life

- ❑ ~ 5 Million tonnes of CO2 sequestered to date
- ❑ 24 active or suspended WAG injectors
- ❑ New injectors deferred since 2017 due to:
 - Delayed response between CO2 injection and oil response (6-12 months) and associated economic impact
 - Cost of CO2
- ❑ Low periods of CO2 sequestration tied to reduced purchases due to:
 - Low commodity prices
 - Field EOR optimization
- ❑ Defined plan to rapidly increase sequestration when economic conditions warrant, and achieve increased long term oil production
- ❑ <5% current annual oil production decline

Drilling Inventory Breakdown



Cardinal Growth/Maintenance Drilling

- ❑ Focus of drilling investment is the production maintenance and growth in existing areas where Cardinal owns and operates infrastructure.
- ❑ At \$55 WTI, all drill ready tier 1 locations would have a payout of less than 2 years and generate rates of return in excess of 50%.

	Drill Ready Tier 1	Tier 2 Follow ups
South	51	35
Central	37	90
North	40	65
Saskatchewan	39	162
TOTAL	167	352



Liability Reduction

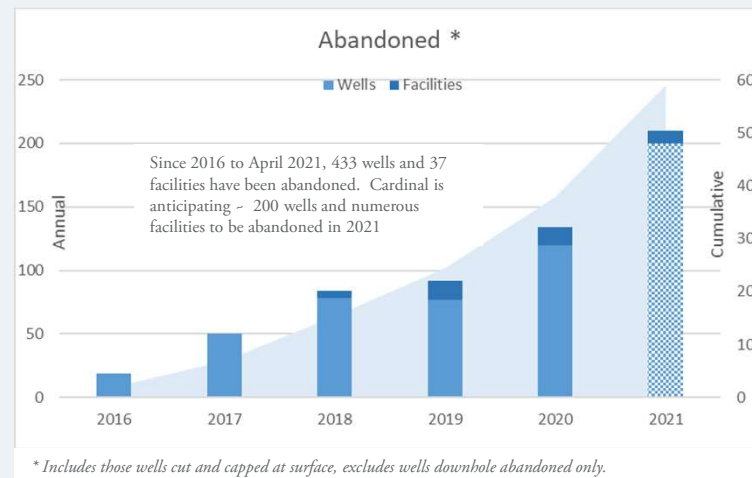


Committed Budget

- ❑ \$5 million of Cardinal's capital budget has been committed to Asset Retirement Obligations (ARO)
- ❑ Cardinal is a voluntary participant in the AER's Area Based Closure (ABC) program, a commitment to spend on inactive liability in an efficient manner. Historically Cardinal has exceeded this required spend.

Taking Advantage of Government Assisted Funding

- ❑ ARO has been assisted with the Alberta Site Rehabilitation Program (SRP) and the Saskatchewan Accelerated Site Closure Program (ASCP).
 - Some \$23 million in funding allocated to date, with a remaining balance of approximately \$13 million to spend in 2021 and 2022.
 - Venturion has been allocated \$0.8 MM of government funding to date.



Full Disclosure and Fully Funded ARO

- ❑ Cardinal's ARO is fully accounted for in its reserve evaluation and the associated net present value.
- ❑ Long life, low decline assets allow for a fully funded ARO, with spending occurring far into the future.

Advisory



Note Regarding Forward Looking Statements

This presentation contains forward-looking statements and forward-looking information (collectively "forward-looking information") within the meaning of applicable securities laws relating to Cardinal's plans and other aspects of Cardinal's anticipated future operations, management focus, objectives, strategies, financial, operating and production results. Forward-looking information typically uses words such as "anticipate", "believe", "project", "expect", "goal", "plan", "intend", "may", "would", "could" or "will" or similar words suggesting future outcomes, events or performance. The forward-looking statements contained in this presentation speak only as of the date thereof and are expressly qualified by this cautionary statement.

Specifically, this presentation contains forward-looking statements relating to: our business goals, strategies, plans and objectives, drilling inventory and future locations, expected future drilling and operating costs, production decline rates, expected realized pricing, the benefits of our risk management program, future free cash flow, plans to increase sustainability and reduce risk by, among other things, improving our ability to replace production, lowering operating costs and increasing netbacks, and by reducing debt, ARO exposure and reliance on third parties and variable costs, our capital budget and the allocation thereof, our drilling and optimization plans, plans to reduce our electricity demand, power generation costs and economics, targeted debt to cash flow, and plans with respect to use of future free cash flow.

Forward-looking statements regarding Cardinal are based on certain key expectations and assumptions of Cardinal concerning anticipated financial performance, business prospects, strategies, regulatory developments, production curtailments, current and future commodity prices and exchange rates, applicable royalty rates, tax laws, future well production rates and reserve volumes, future operating costs, the

performance of existing and future wells, the success of our exploration and development activities, the sufficiency and timing of budgeted capital expenditures in carrying out planned activities, the availability and cost of labor and services, the impact of competition, conditions in general economic and financial markets, availability of drilling and related equipment, effects of regulation by governmental agencies, the ability to obtain financing on acceptable terms which are subject to change based on commodity prices, market conditions, drilling success and potential timing delays.

These forward-looking statements are subject to numerous risks and uncertainties, certain of which are beyond Cardinal's control. Such risks and uncertainties include, without limitation: the impact of general economic conditions; volatility in commodity prices and differentials; power costs; industry conditions; currency fluctuations; imprecision of reserve estimates; liabilities inherent in crude oil and natural gas operations; environmental risks; incorrect assessments of the value of acquisitions and exploration and development programs; competition from other producers; the lack of availability of qualified personnel, drilling rigs or other services; changes in income tax laws or changes in royalty rates and incentive programs relating to the oil and gas industry; changes in curtailment programs; hazards such as fire, explosion, blowouts, and spills, each of which could result in substantial damage to wells, production facilities, other property and the environment or in personal injury; and ability to access sufficient capital from internal and external sources.

Management has included the forward-looking statements above and a summary of assumptions and risks related to forward-looking statements provided in this presentation in order to provide readers with a more complete perspective on Cardinal's future operations and such information may not be appropriate for other purposes. Cardinal's actual results, performance or achievement could differ materially from those

expressed in, or implied by, these forward-looking statements and, accordingly, no assurance can be given that any of the events anticipated by the forward-looking statements will transpire or occur, or if any of them do so, what benefits that Cardinal will derive therefrom. Readers are cautioned that the foregoing lists of factors are not exhaustive. These forward-looking statements are made as of the date of this presentation and Cardinal disclaims any intent or obligation to update publicly any forward-looking statements, whether as a result of new information, future events or results or otherwise, other than as required by applicable securities laws.

Oil and Gas Advisories

The term "boe" or barrels of oil equivalent may be misleading, particularly if used in isolation. A boe conversion ratio of six thousand cubic feet of natural gas to one barrel of oil equivalent (6 Mcf: 1 bbl) is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead. Additionally, given that the value ratio based on the current price of crude oil, as compared to natural gas, is significantly different from the energy equivalency of 6:1; utilizing a conversion ratio of 6:1 may be misleading as an indication of value.

Any references in this presentation to initial production rates are useful in confirming the presence of hydrocarbons, however, such rates are not determinative of the rates at which such wells will continue production and decline thereafter. While encouraging, readers are cautioned not to place reliance on such rates in calculating the aggregate production for Cardinal.

Advisory



This presentation contains metrics commonly used in the oil and natural gas industry which have been prepared by management, such as "netback" or "operating netback". These terms do not have standardized meaning and may not be comparable to similar measures presented by other companies and, therefore, should not be used to make such comparisons. Management uses these oil and gas metrics for its own performance measurements and to provide shareholders with measures to compare Cardinal's operations over time.

Readers are cautioned that the information provided by these metrics, or that can be derived from metrics presented in this presentation, should not be relied upon for investment or other purposes. Refer below to the Non-GAAP Measures section of this presentation for additional disclosure on "operating netback" or "netback".

Drilling Locations

This presentation discloses Cardinal's approximate 500 gross drilling locations, of which 80 (69.7 net) are booked proved undeveloped locations, 25 (22.6 net) are booked probable undeveloped locations and 439 are unbooked. The booked locations are derived from the report prepared by GLJ evaluating Cardinal's reserves as of December 31, 2019. There is no certainty that we will drill all drilling locations and if drilled there is no certainty that such locations will result in additional oil and gas production. The drilling locations on which we actually drill wells will ultimately depend upon the availability of capital, regulatory approvals, seasonal restrictions, oil and natural gas prices, costs, actual drilling results, additional reservoir information that is obtained and other factors. While certain of the unbooked drilling locations have been de-risked by drilling existing wells in relative close proximity to such unbooked drilling locations, other unbooked drilling locations are farther away from existing wells where management has less information about

the characteristics of the reservoir and therefore there is more uncertainty whether wells will be drilled in such locations and if drilled there is more uncertainty that such wells will result in additional oil and gas reserves, resources or production.

Non-GAAP measures

This presentation contains the terms "adjusted funds flow", "free cash flow", "net debt", "net debt to adjusted funds flow", "net bank debt", "net operating expenses" and "netback" which do not have a standardized meaning prescribed by International Financial Reporting Standards ("IFRS" or, alternatively, "GAAP") and therefore may not be comparable with the calculation of similar measures by other companies. Cardinal uses "adjusted funds flow" as a key measure to assess the ability of the Company to generate the funds necessary for financing activities, operating activities, and capital expenditures. Adjusted funds flow excludes the change in non-cash working capital, decommissioning expenditures, and transaction costs since Cardinal believes the timing of collection, payment or incurrence of these items involves a high degree of discretion and variability. Expenditures on decommissioning obligations vary from period to period depending on the maturity of the Company's operating areas and availability of adjusted funds flow and are viewed as part of the Company's capital budgeting process. "Free cash flow" is calculated as adjusted funds flow less development capital expenditures less dividends. "Development capital expenditures" represents expenditures on property, plant and equipment. "Net debt" is calculated as bank debt plus the principal amount of convertible unsecured subordinated debentures ("convertible debentures"), secured notes and adjusted working capital. "Net debt" is used by management to analyze the financial position, liquidity and leverage of Cardinal. "Adjusted working capital" is calculated as current liabilities less current assets (adjusted for the warrant liability, fair value of financial instruments,

current decommissioning obligation and current lease liabilities). "Net debt to adjusted funds flow" is calculated as net debt divided by adjusted funds flow for the trailing twelve month period. The ratio of net debt to adjusted funds flow is used to measure the Company's overall debt position and to measure the strength of the Company's balance sheet. Cardinal monitors this ratio and uses this as a key measure in making decisions regarding financing, capital expenditures and shareholder returns. "Net bank debt" is calculated as net debt less the principal amount of convertible debentures and secured notes. Net bank debt is used by management to analyze the financial position, liquidity, leverage and borrowing capacity on Cardinal's bank line. "Net operating expenses" is calculated as operating expense less processing and other revenue primarily generated by processing third party volumes at processing facilities where the Company has an ownership interest, and can be expressed on a per boe basis. As the Company's principal business is not that of a midstream entity, management believes this is a useful supplemental measure to reflect the true cash outlay at its processing facilities by utilizing spare capacity through processing third party volumes. "Netback" is calculated on a boe basis and is determined by deducting royalties, transportation costs and net operating expenses from petroleum and natural gas revenue in accordance with the Canadian Oil and Gas Evaluation ("COGE") Handbook. Netback is utilized by Cardinal to better analyze the operating performance of our petroleum and natural gas assets as compared to prior periods.