

Refinery Capacity Matchup

Data From Year:
2023

By Refinery

By Company

Important: WRB Refineries are not displayed with the equity share split to Cenovus and Phillips 66 . WRB is listed as Owner

More Capacity Values

Refinery 1

Artesia (HF)

Crude Distillation

Vacuum Distillation

% Vacuum of Crude

Coking

% Coker of Crude

Catalytic Cracking

% Cat. Cracking of
Crude

Nelson Complexity Index

Refinery 2

Whiting (BP)

Crude Distillation

Vacuum Distillation

% Vacuum of Crude

Coking

% Coker of Crude

Catalytic Cracking

% Cat. Cracking of
Crude

Nelson Complexity Index

Delta

Crude Distillation

Vacuum Distillation

% Vacuum of Crude

Coking

% Coker of Crude

Catalytic Cracking

% Cat. Cracking of
Crude

*Definitions

Vacuum Distillation - Separates atmospheric residual under vacuum pressure which is critical for separating gas oil from vacuum resid to provide feed for cracking units and deeper conversion. This is required to process heavy crude.

Cat. Cracking - Also known as a Fluid Catalytic Cracker (FCC) takes Vacuum Gas Oil and intermediate streams, cracking them in the presence of catalysts and heat. FCC Gasoline is the primary product along with NGL grades, some of which feed Alkylolation units.

Coking - Commonly referred to as delayed coking, Coking is the most extreme deep conversion processing unit which takes Vacuum Resid and cracks it into high value products and solid Petroleum Coke. This unit enables the most efficient conversion of heavy/advantaged crude.

Crude Distillation

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Sub Region

- ☐ Canada East
- ☐ Canada West
- ☐ PADD I
- ☐ PADD II
- ☒ PADD III
- ☐ PADD IV
- ☐ PADD V

By Refinery

By Company

Source

- ☒ Wood Mackenzie
- ☐ OGJ
- ☐ IHS

Data From Year:
2022

Highest

Lowest

Showing Top 18 Refineries By Crude Distillation (Mbbbls)



See Full List

Showing Cenovus and Close Competitor Crude Distillation (Mbbbls)



See Full List

Crude Distillation is the refining process of separating crude oil components at atmospheric pressures

Avg Crude Dist.
US & CAN

Avg Crude Dist.
Cenovus

Cenovus Crude

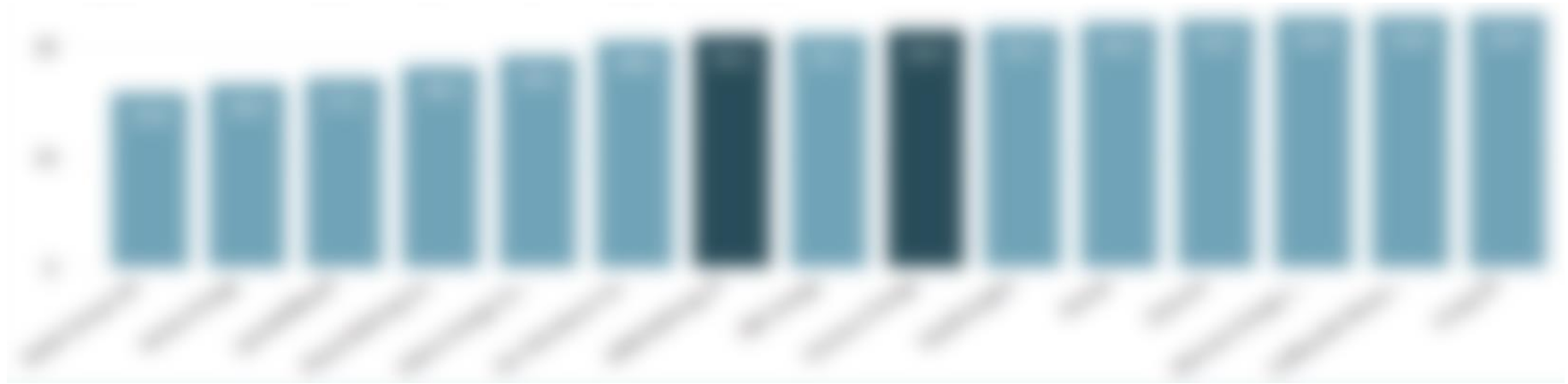
Net Cash Margin

Important: WRB Refineries are not displayed with the equity share split to Cenovus and Phillips 66 . WRB is listed as **Owner**. Upgraders are excluded from this presentation.

Highest

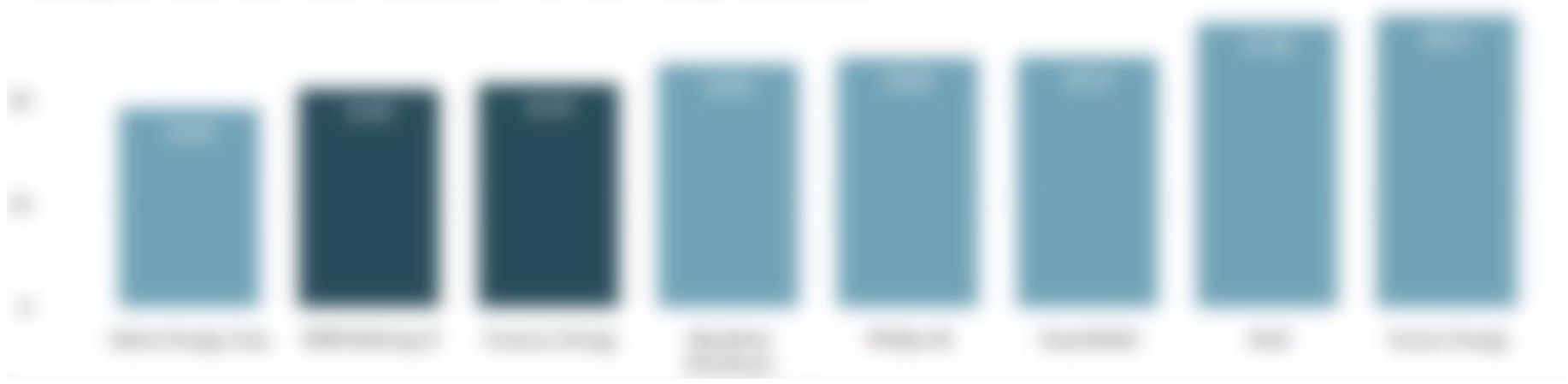
Lowest

Showing Bottom 18 Companies By Net Cash Margin (US\$/bbl)



See Full List

Showing Cenovus and Close Competitor Net Cash Margin (US\$/bbl)



See Full List

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By Refinery

By Company

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Data From Year:
2022

Net Cash Margin is akin to EBIDA per barrel measuring revenue net of cost of product and cash operating costs

Avg Net Cash Margin US & CAN

Avg Net Cash Margin Cenovus

Cenovus Crude

Complexity Analysis

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By Refinery

By Company

Source

- ☒ Wood Mackenzie
- ☐ OGJ
- ☐ IHS

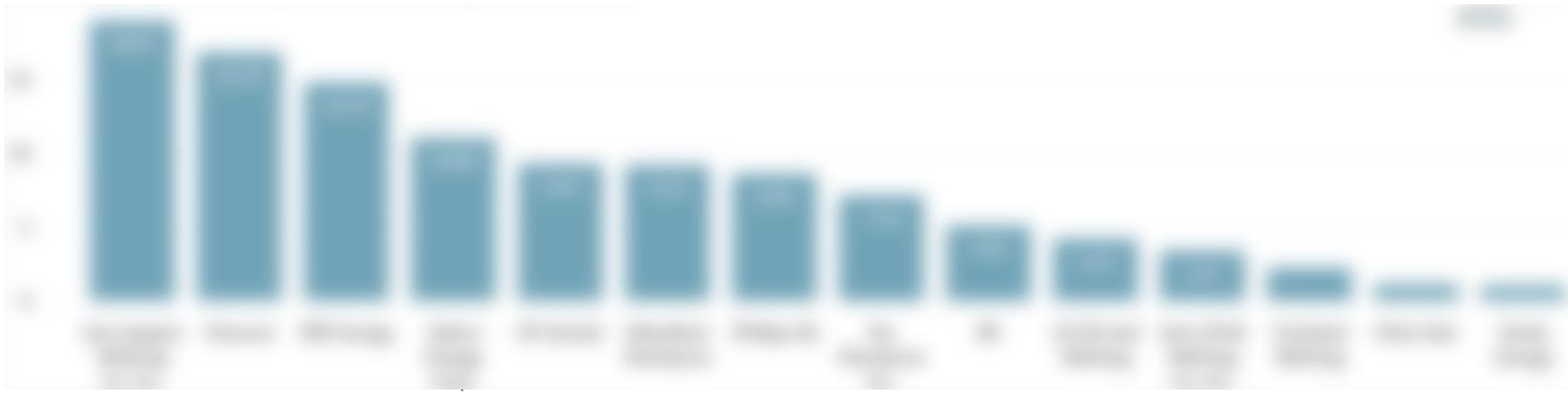
Data From Year:
2022

Highest

Lowest

Showing Top 15 Companies By Complexity Index

Data From Year:



See Full List

Showing Cenovus and Competitor Companies By Complexity Index

Data From Year:



See Full List

Complexity Index

provides an easy metric for quantifying and ranking the complexity of various refineries and units

Avg Complexity US & CAN

Avg Complexity Cenovus

Cenovus Complexity



Complexity vs. Gross Margin & Opex

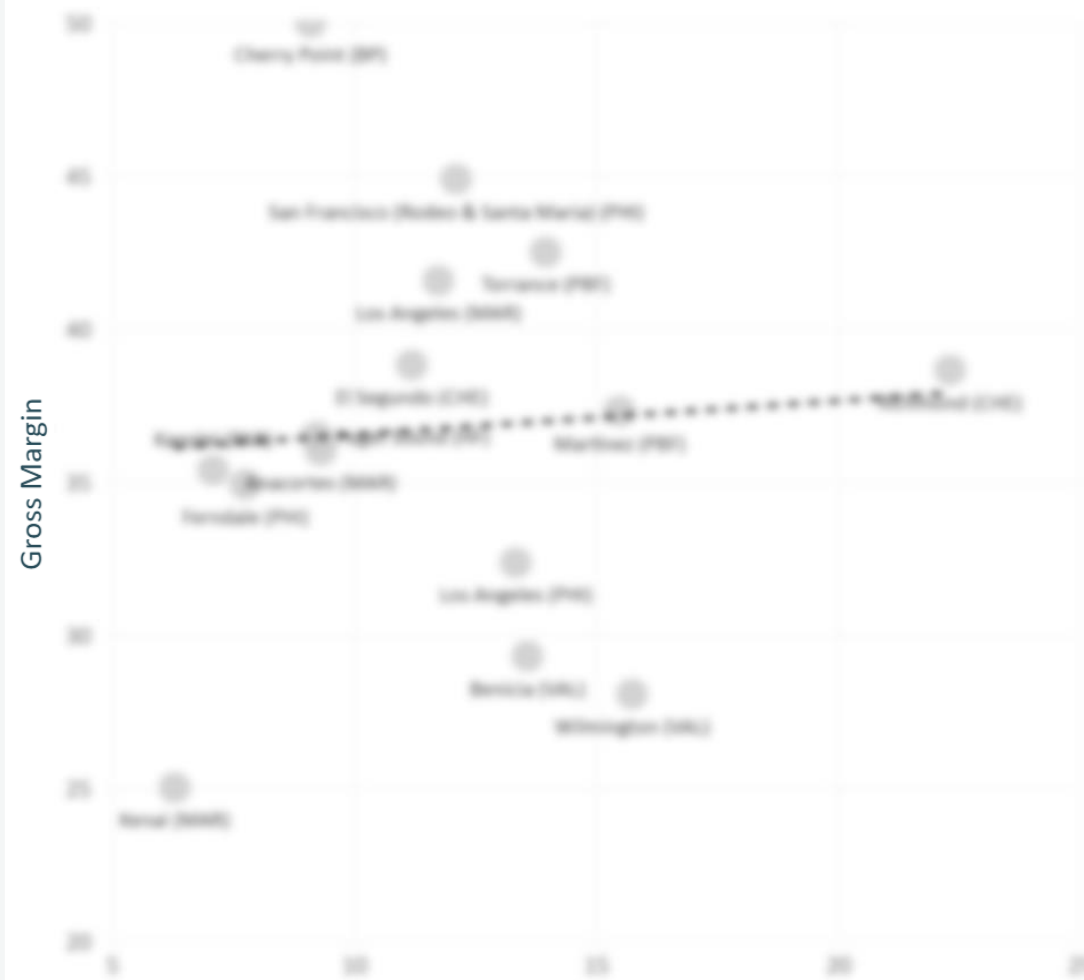
* **Complexity** Indicates a Refineries ability to convert inputs into high value end products and thus Gross Margin and Opex should generally increase with additional processing units

Cenovus

US & CAN Comp

Gross Margin vs Complexity Index 2022

Refinery (Owner) ● Anacorte... ● Bakersfiel... ● Bakersfiel... ● Benicia (... ● Cherry P...



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By Company

By Refinery

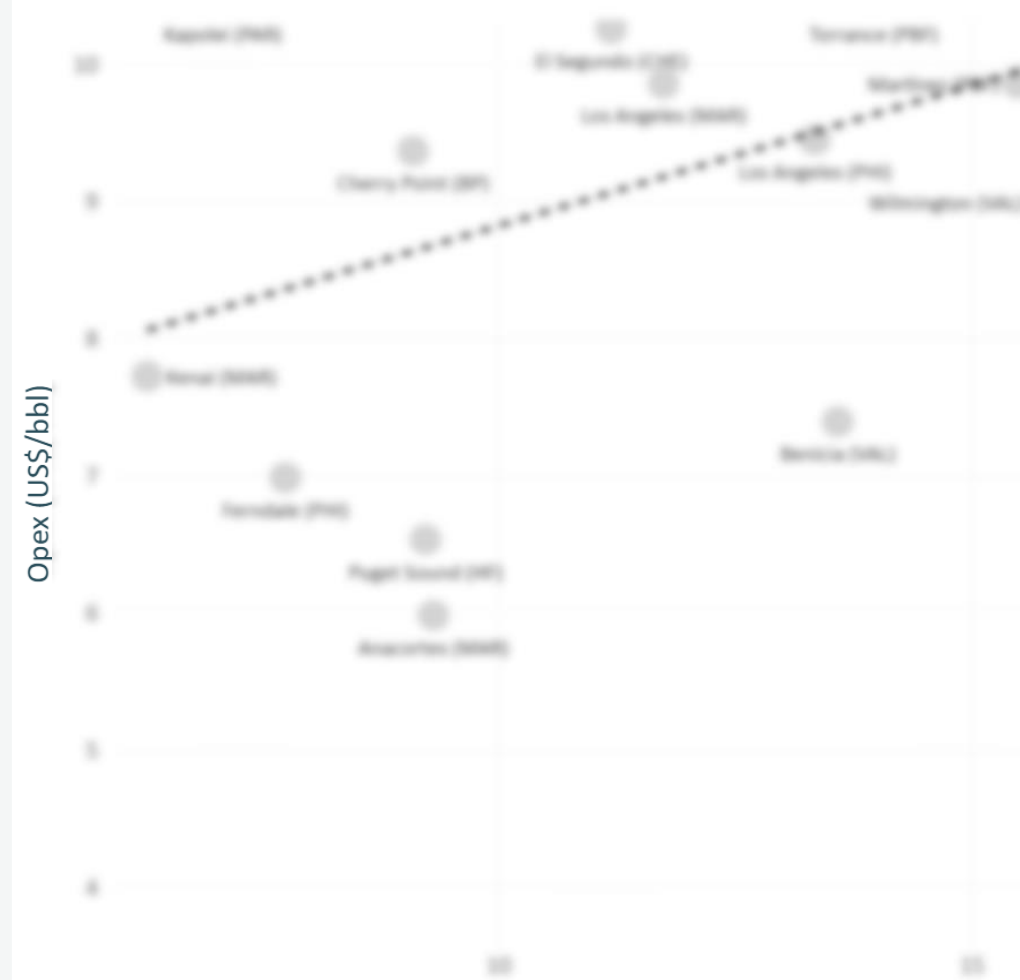
The Information provided is
obtained from
Wood Mackenzie

Refinery Data is from
Year **2022**

Refineries **Borger** and
Wood River show overall
results of WRB Refining
Group

Opex vs Complexity Index 2022

Refinery (Owner) ● Anacorte... ● Bakersfie... ● Bakersfie... ● Benicia (... ● Cherry P...





Refinery

All

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Data From Year:

2022

Refinery Values and Capacities

Important: WRB Refineries are not displayed with the equity share split to Cenovus and Phillips 66 . WRB is listed as Owner

Owner	Refinery (Owner)	Crude distillation	Vacuum distillation	Net Cash Margin (US\$/bbl)	Gross Margin	Opex (US\$/bbl)	Comple
Marathon Petroleum	Galveston Bay (MAR)						
	Garyville (MAR)						
	Los Angeles (MAR)						
	Catlettsburg (MAR)						
	Robinson (MAR)						
	Detroit (MAR)						
	El Paso (MAR)						
	Anacortes (MAR)						
	St. Paul Park (MAR)						
	Canton (MAR)						
	Mandan (MAR)						
	Kenai (MAR)						
	Salt Lake City (MAR)						
	Martinez (MAR)						
Valero Energy Corp.	Port Arthur (VAL)						
	Corpus Christi (VAL)						
	Jean Gaulin (VAL)						
	Texas City (VAL)						
	St. Charles (VAL)						