

Northern Oil and Gas

Downgrade to U/P as we move defensive on oil in 2024, lower PO to \$39

Rating Change: UNDERPERFORM | PO: 39.00 USD | Price: 36.54 USD

Limited upside without major macro changes

We downgrade Northern Oil and Gas (NOG) to Underperform, lowering our PO to \$39 from \$48 as we have moved defensive on oil in 2024 (see our year ahead report entitled 2024 Outlook: Rangebound: Defensive oil, seasonal refining & still battleground gas) given a steeply backwardated oil curve, which we see as reflecting record OPEC spare capacity, along with the possibility that Saudi may potentially have more difficulty in stabilizing the commodity price due to demand uncertainty and non-OPEC growth. Given these risks, we have our lowered our long-term oil deck for our coverage universe to \$70 WTI from \$75 / bbl while adjusting long-term natural gas to \$4 HH from \$4.25 / mcf based upon strip pricing post 2026. The net result is that we view NOG's shares as fully valued, with upside from here likely limited unless there are major changes on the macro front.

D/g primarily based on macro, no operational issues expected

Our downgrade is primarily a commodity call as we are not anticipating any major operational issues for NOG this year as we believe it has sufficient capital in the ground to drive growth. It also has the flexibility to lower spending, given its non-op business model. With that said, one area that could possibly slow if there is uncertainty related to the oil price is large-scale acquisitions. In our view, this could be a slight negative as we believe NOG's past share performance has benefited from well-timed deals as reflected, in part, by its ~28% relative outperformance versus the Russell 3000 Energy Index in 2023. However, we see this as potentially offset, in part, by smaller deal activity (what it calls its ground game) as operators may look to NOG as a potential source of funds.

We prefer more natural gas exposed names

We make this downgrade during what we perceive as potentially one of the most uncertain oil macro environments since the start COVID with a preference for more gassy long-term exposure. Our \$39 PO on NOG is based upon a discounted cash flow assuming an 8.75% WACC and a long-term price deck of \$70 WTI / \$4 HH.

Estimates (Dec) (US\$)	2021A	2022A	2023E	2024E	2025E
EPS	3.49	6.53	6.73	7.14	6.79
GAAP EPS	(0.76)	8.49	7.89	7.14	6.79
EPS Change (YoY)	271.3%	87.1%	3.1%	6.1%	-4.9%
Consensus EPS (Bloomberg)			6.82	7.29	6.98
DPS	0.11	0.88	1.45	1.52	1.60
Valuation (Dec)					
P/E	10.5x	5.6x	5.4x	5.1x	5.4x
GAAP P/E	NM	4.3x	4.6x	5.1x	5.4x
Dividend Yield	0.3%	2.4%	4.0%	4.2%	4.4%
EV/EBITDA*	10.0x	5.2x	3.8x	3.2x	3.3x
Free Cash Flow Yield*	5.3%	13.0%	18.3%	19.0%	14.3%
* For full definitions of <i>IQ</i> method SM measures, see page 5.					

Bof A Securities does and seeks to do business with issuers covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

Refer to important disclosures on page 6 to 8. Analyst Certification on page 4. Price
Objective Basis/Risk on page 4.

05 January 2024

Equity

Key Changes		
(US\$)	Previous	Current
Inv. Opinion	C-1-7	C-3-7
Inv. Rating	BUY	UNDERPERFORM
Price Obj.	48.00	39.00

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Stock Data

Price	36.54 USD
Price Objective	39.00 USD
Date Established	5-Jan-2024
Investment Opinion	C-3-7
52-Week Range	25.56 USD - 43.64 USD
Mrkt Val (mn) / Shares Out	3,673 USD / 100.5
(mn)	
Free Float	88.3%
Average Daily Value (mn)	51.61 USD
BofA Ticker / Exchange	NOG / NYS
Bloomberg / Reuters	NOG US / NOG.N
ROE (2023E)	48.8%
Net Dbt to Eqty (Dec-2022A)	204.3%
ESGMeter™	Low

ESGMeter is not indicative of a company's future stock price performance and is not an investment recommendation or rating. ESGMeter is independent of BofA Global Research's equity investment rating, volatility risk rating, income rating, and price objective for that company. For full details, refer to "BofA ESGMeter Methodology".

iQprofile[™] Northern Oil and Gas

(US\$ Millions)	2021A	2022A	2023E	2024E	2025E
Return on Capital Employed	6.7%	39.1%	24.8%	22.1%	18.1%
Return on Equity	NM	117.8%	48.8%	34.2%	25.7%
Operating Margin	15.7%	54.3%	46.6%	46.0%	45.3%
Free Cash Flow	195	478	671	698	524
iQmethod [™] – Quality of Earnings*					
(US\$ Millions)	2021A	2022A	2023E	2024E	2025
Cash Realization Ratio	1.5x	1.6x	2.4x	2.2x	2.13
Asset Replacement Ratio	1.4x	1.8x	1.7x	1.4x	1.4>
Tax Rate	3.5%	NM	NM	NM	NM
Net Debt-to-Equity Ratio	369.0%	204.3%	93.4%	52.5%	30.2%
Interest Cover	1.3x	10.6x	6.8x	8.6x	8.3
Income Statement Data (Dec)					
(US\$ Millions)	2021A	2022A	2023E	2024E	2025
Sales	497	1,571	1,937	2,318	2,250
% Change	-10.0%	216.1%	23.3%	19.7%	-3.0%
Gross Profit	326	1,310	1,600	1,936	1,873
% Change	-25.2%	301.7%	22.2%	21.0%	-3.3%
EBITDA	543	1,034	1,444	1,712	1,652
% Change	55.2%	90.4%	39.7%	18.5%	-3.5%
Net Interest & Other Income	(71)	(77)	(119)	(124)	(124)
Net Income (Adjusted)	256	566	618	712	676
% Change	172.4%	120.9%	9.2%	15.2%	-4.9%
(US\$ Millions)	2021A	2022A	2023E	2024E	20251
Net Income from Cont Operations (GAAP) Depreciation & Amortization	(56) 141	735 251	725 485	711 633	676 619
Change in Working Capital	0	0	1,294	1,554	1,045
Deferred Taxation Charge	43	98	1,234	231	1,042
Other Adjustments, Net	268	(156)	(1,202)	(1,540)	(1,032)
Capital Expenditure	(202)	(451)	(820)	(890)	11.0.32
Free Cash Flow			. ,	(050)	
TICC Cash How	195	478	671		(879)
% Change	195 104.9%	478 145.4%	671 40.6%	698	(879) 524
% Change Share / Issue Repurchase	104.9%	145.4%	40.6%	698 4.0%	(879) 524 - 25.0 %
Share / Issue Repurchase	104.9% 228	145.4% (54)	40.6% 212	698 4.0% 4	(879 524 - 25.0%
<u> </u>	104.9%	145.4%	40.6%	698 4.0%	(879) 524 - 25.0%
Share / Issue Repurchase Cost of Dividends Paid	104.9% 228 (28)	145.4% (54) (28)	40.6% 212 0	698 4.0% 4 0	(879) 524 - 25.0%
Share / Issue Repurchase Cost of Dividends Paid Change in Debt Balance Sheet Data (Dec)	104.9% 228 (28) (89)	145.4% (54) (28) 726	40.6% 212 0 714	698 4.0% 4 0 0	(879) 524 - 25.0% (0
Share / Issue Repurchase Cost of Dividends Paid Change in Debt Balance Sheet Data (Dec) (US\$ Millions)	104.9% 228 (28) (89)	145.4% (54) (28) 726	40.6% 212 0 714 2023E	698 4.0% 4 0 0	(879) 524 -25.0%
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Share / Issue Repurchase Cost of Dividends Paid Change in Debt Balance Sheet Data (Dec) (US\$ Millions) Cash & Equivalents Trade Receivables	228 (28) (89) 2021A 10 194	145.4% (54) (28) 726 2022A 3 271	40.6% 212 0 714 2023E 13 364	698 4.0% 4 0 0 2024E 441 364	(879) 524 -25.0% (0 0 2025) 807 364
Share / Issue Repurchase Cost of Dividends Paid Change in Debt Balance Sheet Data (Dec) (US\$ Millions) Cash & Equivalents Trade Receivables Other Current Assets	228 (28) (89) 2021A 10 194 12	145.4% (54) (28) 726 2022A 3 271 47	40.6% 212 0 714 2023E 13 364 93	698 4.0% 4 0 0 2024E 441 364 93	(879) 524 -25.0% ((((((((((((((((((((((((((((((((((((
Share / Issue Repurchase Cost of Dividends Paid Change in Debt Balance Sheet Data (Dec) (US\$ Millions) Cash & Equivalents Trade Receivables Other Current Assets Property, Plant & Equipment	228 (28) (89) 2021A 10 194 12 1,253	145.4% (54) (28) 726 2022A 3 271 47 2,483	40.6% 212 0 714 2023E 13 364 93 3,849	698 4.0% 4 0 0 2024E 441 364 93 4,231	(879) 524 -25.0% ((((((((((((((((((((((((((((((((((((
Share / Issue Repurchase Cost of Dividends Paid Change in Debt Balance Sheet Data (Dec) (US\$ Millions) Cash & Equivalents Trade Receivables Other Current Assets	228 (28) (89) 2021A 10 194 12	145.4% (54) (28) 726 2022A 3 271 47	40.6% 212 0 714 2023E 13 364 93	698 4.0% 4 0 0 2024E 441 364 93	(879) 524 -25.0% ((((((((((((((((((((((((((((((((((((
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Share / Issue Repurchase Cost of Dividends Paid Change in Debt Balance Sheet Data (Dec) (US\$ Millions) Cash & Equivalents Trade Receivables Other Current Assets Property, Plant & Equipment Other Non-Current Assets	228 (28) (89) 2021A 10 194 12 1,253 54	145.4% (54) (28) 726 2022A 3 271 47 2,483 72	40.6% 212 0 714 2023E 13 364 93 3,849 46	698 4.0% 4 0 0 2024E 441 364 93 4,231 46	(879) 524 -25.0% ((((((((((((((((((((((((((((((((((((
Share / Issue Repurchase Cost of Dividends Paid Change in Debt Balance Sheet Data (Dec) (US\$ Millions) Cash & Equivalents Trade Receivables Other Current Assets Property, Plant & Equipment Other Non-Current Assets Total Assets Short-Term Debt Other Current Liabilities	228 (28) (89) 2021A 10 194 12 1,253 54 1,523	145.4% (54) (28) 726 2022A 3 271 47 2,483 72 2,875 0 275	40.6% 212 0 714 2023E 13 364 93 3,849 46 4,365 0 422	698 4.0% 4 0 0 2024E 441 364 93 4,231 46 5,175 0 422	(879) 524 -25.0% ((((((((((((((((((((((((((((((((((((
Share / Issue Repurchase Cost of Dividends Paid Change in Debt Balance Sheet Data (Dec) (US\$ Millions) Cash & Equivalents Trade Receivables Other Current Assets Property, Plant & Equipment Other Non-Current Assets Total Assets Short-Term Debt	228 (28) (89) 2021A 10 194 12 1,253 54 1,523 0 192	145.4% (54) (28) 726 2022A 3 271 47 2,483 72 2,875 0	40.6% 212 0 714 2023E 13 364 93 3,849 46 4,365 0	698 4.0% 4 0 0 2024E 441 364 93 4,231 46 5,175 0	(879) 524 -25.0% ((((((((((((((((((((((((((((((((((((
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Share / Issue Repurchase Cost of Dividends Paid Change in Debt Balance Sheet Data (Dec) (US\$ Millions) Cash & Equivalents Trade Receivables Other Current Assets Property, Plant & Equipment Other Non-Current Assets Total Assets Short-Term Debt Other Current Liabilities Long-Term Debt Other Non-Current Liabilities	228 (28) (89) 2021A 10 194 12 1,253 54 1,523 0 192 803	145.4% (54) (28) 726 2022A 3 271 47 2,483 72 2,875 0 275 1,525 330	40.6% 212 0 714 2023E 13 364 93 3,849 46 4,365 0 422 1,683	698 4.0% 4 0 0 2024E 441 364 93 4,231 46 5,175 0 422 1,683	(879) 524 -25.0% 0 0 0 2025 807 364 93 4,491 46 5,802 0 422 1,683 796 2,901 2,900

Company Sector

Oil & Gas Producers

Company Description

Northern Oil and Gas is the largest publically traded nonoperated E&P. Its net production reflects a broad array of working interests in a series of oil and gas properties where it partners with operators and takes a cut of well level revenues for a proportional amount of capital operating costs. It has assets in North Dakota, Pennsylvania and the Permian Basin.

Investment Rationale

Our Underperform rating is primarily based on the commodity environment as we perceive limited upside given a steeply backwardated oil curve.

Stock Data

Average Daily Volume

1,412,318

Quarterly Earnings Estimates

	2022	2023
Q1	1.58A	1.75A
Q2	1.72A	1.50A
Q3	1.80A	1.73E
Q4	1.43A	1.74E



* For full definitions of $\emph{IQ}\textit{method}^{\,\text{SM}}$ measures, see page 5.

\$39 Price Objective

Below is a summary of our \$39 DCF valuation for NOG assuming a long-term commodity deck of \$4 HH / \$70 WTI and an 8.75% WACC. Please note we start our valuation at the end of 1Q24 in order to avoid double counting for its Northern Delaware transaction, which is expected to close in 1Q24, that was announced on November 21st.

Exhibit 1: NOG DCF valuation: \$39 PO

Cash flows extend beyond the time period shown

Decline		1Q24	2Q24	3Q24	4Q24	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Oil Production (Mbbl/d)		79	79	77	75	75	73	66	59	55	52	44	39	35	32	30
Boe Production (Mboe/d)		1262	1241	119.8	1168	1195	113.1	101.2	903	83.2	780	67	59	53	49	45
WTI (\$/bbl)		\$3.8	\$3.3	\$3.5	\$3.8	\$72.5	\$70.0	\$70.0	\$70.0	\$70.0	\$70.0	\$70.0	\$70.0	\$70.0	\$70.0	\$70.0
Brent (\$/bbl)		\$72.5	\$77.5	\$77.5	\$72.5	\$77.5	\$75.0	\$75.0	\$75.0	\$75.0	\$75.0	\$75.0	\$75.0	\$75.0	\$75.0	\$75.0
Henry Hub (\$/MMbtu)		\$77.50	\$82.50	\$82.50	\$77.50	\$3.55	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00
Consolidated:																
Debt Adjusted Cash Flow		424	437	426	395	1,496	1,422	1,261	1,132	1,047	984	846	744	670	616	579
Capital Expenditures		(356)	(221)	(226)	(213)	(879)	(854)	(810)	(742)	(688)	(631)					
Free Cash Flow	-	-	216	199	182	617	568	451	390	359	352	846	744	670	616	579
Present Value	5,504											14%	12%	10%	8%	6%
Total PV	5,504															
Less: Net Debt	1,658															
Equity Value	3,847															
Diluted Shares Outstanding	100															
Valuation	39															

Source: BofA Global Research estimates

BofA GLOBAL RESEARCH

Price objective basis & risk

Northern Oil and Gas (NOG)

Our price objective of \$39/sh assumes \$70 WTI / \$4 HH long-term. We apply a long-term (post-tax) weighted average cost of capital (WACC) of about 9%.

Downside risks to our price objective are: 1) the oil and gas macro environment, 2) NOG's non-op model leaves limited clarity on go forward activity assumptions, 3) Risks that NOG enters into expensive acquisitions as a means to maintain its production profile.

Upside risks are: 1) potential accretive transactions on favorable terms, 2) Costs coming in better than expected, and 3) productivity being better than expected.

Analyst Certification

I, John H. Abbott, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

US - Large Cap Oils Coverage Cluster

Investment rating	Company	Bof A Ticker	Bloomberg symbol	Analyst
BUY				
	APA Corporation	APA	APA US	Doug Leggate
	Canadian Natural Resources	YCNQ	CNQ CN	Doug Leggate
	Canadian Natural Resources	CNQ	CNQ US	Doug Leggate
	Chesapeake Energy	CHK	CHK US	Doug Leggate
	Chevron Corp.	CVX	CVX US	Doug Leggate
	ConocoPhillips	COP	COPUS	Doug Leggate
	Coterra Energy Inc	CTRA	CTRA US	Doug Leggate
	EQT Corporation	EQT	EQT US	John H. Abbott
	ExxonMobil Corp.	XOM	XOM US	Doug Leggate
	Granite Ridge Resources, Inc	GRNT	GRNT US	John H. Abbott
	Imperial Oil	IMO	IMO US	Doug Leggate
	Imperial Oil	YIMO	IMO CN	Doug Leggate
	Kimbell Royalty Partners	KRP	KRP US	John H. Abbott
	Occidental Petroleum Corp.	OXY	OXY US	Doug Leggate
	Ovintiv Inc	YOW	OW CN	Doug Leggate
	Ovintiv Inc	OW	OW US	Doug Leggate
	Range Resources Corp	RRC	RRC US	Doug Leggate
	Southwestern Energy Corp.	SWN	SWN US	Doug Leggate
	Suncor	YSU	SUCN	Doug Leggate
	Suncor	SU	SUUS	Doug Leggate
NEUTRAL				
	California Resources Corporation	CRC	CRC US	Kalei Akamine
	CNX Resources	CNX	CNX US	John H. Abbott
	Delek US Holdings, Inc.	DK	DK US	Doug Leggate
	Devon Energy Corp.	DVN	DVN US	Doug Leggate
	EOG Resources	EOG	EOG US	Doug Leggate
	Gulfport Energy Corporation	GPOR	GPOR US	Doug Leggate
	HF Sinclair Corporation	DINO	DINO US	Doug Leggate
	Marathon Petroleum Company	MPC	MPC US	Doug Leggate
	PBF Energy	PBF	PBF US	Doug Leggate
	Phillips 66	PSX	PSX US	Doug Leggate
	Valero Energy Corp.	VLO	VLO US	Doug Leggate
UNDERPERFORM				
	Chord Energy Corporation	CHRD	CHRD US	John H. Abbott
	Crescent Energy Company	CRGY	CRGY US	John H. Abbott
	Diamondback Energy Inc.	FANG	FANG US	Doug Leggate
	Marathon Oil Corp.	MRO	MRO US	Doug Leggate

US - Large Cap Oils Coverage Cluster

Investment rating	Company	Bof A Ticker	Bloomberg symbol	Analyst
	National Fuel Gas Company	NFG	NFG US	John H. Abbott
	Northern Oil and Gas	NOG	NOG US	John H. Abbott
	Vital Energy Inc	VTLE	VTLE US	John H. Abbott
RSTR				
	Pioneer Natural Resources	PXD	PXD US	Doug Leggate

Qmethod [™] Measures Definitions

Business Performance	Numerator	Denominator
Return On Capital Employed	NOPAT = (EBIT + Interest Income) \times (1 – Tax Rate) + Goodwill Amortization	Total Assets – Current Liabilities + ST Debt + Accumulated Goodwill Amortization
Return On Equity Operating Margin Earnings Growth	Net Income Operating Profit Expected 5 Year CAGR From Latest Actual	Shareholders' Equity Sales N/A
Free Cash Flow	Cash Flow From Operations — Total Capex	N/A
Quality of Earnings	Numerator	Denominator
Cash Realization Ratio	Cash Flow From Operations	Net Income
Asset Replacement Ratio	Capex	Depreciation
Tax Rate	Tax Charge	Pre-Tax Income
Net Debt-To-Equity Ratio	Net Debt = Total Debt — Cash & Equivalents	Total Equity
Interest Cover	EBIT	Interest Expense
Valuation Toolkit	Numerator	Denominator
Price / Earnings Ratio	Current Share Price	Diluted Earnings Per Share (Basis As Specified)
Price / Book Value	Current Share Price	Shareholders' Equity / Current Basic Shares
Dividend Yield	Annualised Declared Cash Dividend	Current Share Price
Free Cash Flow Yield	Cash Flow From Operations - Total Capex	Market Cap = Current Share Price × Current Basic Shares
Enterprise Value / Sales	EV = Current Share Price × Current Shares + Minority Equity + Net Debt + Other LT Liabilities	Sales
EV / EBITDA	Enterprise Value	Basic EBIT + Depreciation + Amortization

Method 3st is the set of BofA Global Research standard measures that serve to maintain global consistency under three broad headings: Business Performance, Quality of Earnings, and validations. The key features of iQmethod are: A consistently structured, detailed, and transparent methodology. Guidelines to maximize the effectiveness of the comparative valuation process, and to identify some common pitfalls.

Relatabase is our real-time global research database that is sourced directly from our equity analysts' earnings models and includes forecasted as well as historical data for income statements, balance sheets, and cash flow statements for companies covered by BofA Global Research.

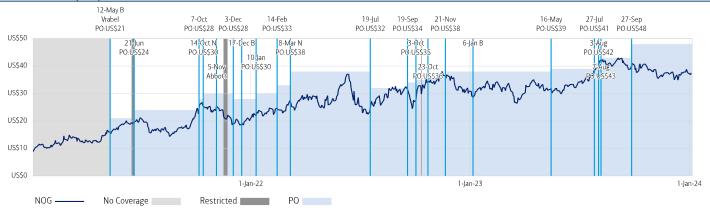
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Disclosures

Important Disclosures

Northern Oil and Gas (NOG) Price Chart



B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

The Investment Opinion System is contained at the end of the report under the heading "Fundamental Equity Opinion Key". Dark grey shading indicates the security is restricted with the opinion suspended. Medium grey shading indicates the security is under review with the opinion withdrawn. Light grey shading indicates the security is not covered. Chart is current as of a date no more than one trading day prior to the date of the report.

Equity Investment Rating Distribution: Energy Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships R1	Count	Percent
Buy	83	61.48%	Buy	64	77.11%
Hold	28	20.74%	Hold	21	75.00%
Sell	24	17.78%	Sell	18	75.00%

Equity Investment Rating Distribution: Global Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships R1	Count	Percent
Buy	1895	53.62%	Buy	1083	57.15%
Hold	832	23.54%	Hold	454	54.57%
Sell	807	22.84%	Sell	383	47.46%

Issuers that were investment banking clients of BofA Securities or one of its affiliates within the past 12 months. For purposes of this Investment Rating Distribution, the coverage universe includes only stocks. A stock rated Neutral is included as a Hold, and a stock rated Underperform is included as a Sell.

FUNDAMENTAL EQUITY OPINION KEY: Opinions include a Volatility Risk Rating, an Investment Rating and an Income Rating. VOLATILITY RISK RATINGS, indicators of potential price fluctuation, are: A - Low, B - Medium and C - High. INVESTMENT RATINGS reflect the analyst's assessment of both a stock's absolute total return potential as well as its attractiveness for investment relative to other stocks within its Coverage Cluster (defined below). Our investment ratings are: 1 - Buy stocks are expected to have a total return of at least 10% and are the most attractive stocks in the coverage cluster, 2 - Neutral stocks are expected to remain flat or increase in value and are less attractive than Buy rated stocks and 3 - Underperform stocks are the least attractive stocks in a coverage cluster. An investment rating of 6 (No Rating) indicates that a stock is no longer trading on the basis of fundamentals. Analysts assign investment ratings considering, among other things, the 0-12 month total return expectation for a stock and the firm's guidelines for ratings dispersions (shown in the table below). The current price objective for a stock should be referenced to better understand the total return expectation at any given time. The price objective reflects the analyst's view of the potential price appreciation (depreciation).

Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster ^{R2}
Buy	≥ 10%	≤ 70%

Neutral ≥ 0% ≤ 30%

Underperform N/A ≥ 20%

**Partings disparsions may vary from time to time where RefA Global Research believes it better reflects the investment prespects of stocks in a Covernment.

INCOME RATINGS, indicators of potential cash dividends, are: 7 - same/higher (dividend considered to be secure), 8 - same/lower (dividend not considered to be secure) and 9 - pays no cash dividend. Coverage Cluster is comprised of stocks covered by a single analyst or two or more analysts sharing a common industry, sector, region or other classification(s). A stock's coverage cluster is included in the most recent BofA Global Research report referencing the stock.

Price Charts for the securities referenced in this research report are available on the Price Charts website, or call 1-800-MERRILL to have them mailed.

BofAS or one of its affiliates acts as a market maker for the equity securities recommended in the report: Northern Oil and Gas.

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The issuer is or was, within the last 12 months, an investment banking client of BofAS and/or one or more of its affiliates: Northern Oil and Gas.

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