

## Activity Report for the Quarter ended March 2019

### ASX RELEASE

### EMPIRE ENERGY GROUP LIMITED

30 April 2019

*All references in this report to Dollars or \$ are United States Dollar unless stated otherwise*

Empire Energy Group Limited (ASX:EEG) (“Empire” or “the Company”) is pleased to provide shareholders with its Quarterly Activity Report for the period ending 31 March 2019.

#### HIGHLIGHTS

- Material progress on US asset sales process
- Continued focus on balance sheet management and cost reduction
- Significant improvement in US EBITDA and cash flow driven by increased production rates, higher realized commodity prices and reduced costs
- Northern Territory onshore shale gas industry activity ramping up significantly
- Empire Northern Territory 2019 work program planning progressing
- New Director appointed
- US\$3.3 million cash at bank at quarter end

## US ASSET SALES PROCESS

During the Quarter, Empire has made significant progress on the US Asset Sales process.

Empire has received and considered several indicative, non-binding proposals from oil and gas companies interested in acquiring part or all of the US assets.

Of all of the proposals received, only one proposal was for all of the US assets but was highly conditional and was considered to have unduly high execution risk

All of the other proposals related to the Kansas oil production assets.

Empire continues to work towards the sale of the Kansas assets with a goal of entering into a binding sale and purchase agreement with a preferred bidder during the Quarter ending 30 June 2019. In the event that a sale agreement is entered into which reaches financial close, Empire intends to apply the full proceeds of the sale consideration (after costs) towards debt reduction.

This would result in a substantial reduction in debt outstanding while allowing Empire to retain its cash flow positive Appalachia gas production assets and all of the substantial upside potential of its Utica and Marcellus Shale acreage holdings in New York State.

Empire will continue to consider strategic alternatives for the Appalachia assets over the coming months to maintain its strategic focus on debt elimination and adding value to the Northern Territory assets.

## BALANCE SHEET AND COST MANAGEMENT

During the Quarter, Empire made principal repayments from US free cash flow totaling \$0.3 million which reduced the debt balance to \$25.7 million.

Empire was in compliance with all debt facility covenants at the end of the Quarter.

Empire's cash balance reduced from \$4.2 million to \$3.3 million during the Quarter. This was primarily due to the payment of termination benefits and accrued but unpaid consulting fees to the estate of the former CEO, who died in September 2018, totaling \$0.5 million. These costs had been recognized in Company accounts in previous periods but actually paid during the Quarter. All liabilities owing to the former CEO's consulting services company have now been paid in full and there are no remaining obligations owed by Empire.

A continued focus on cost reduction is yielding results characterized by significantly lower US Corporate costs.

Shortly after the end of the Quarter, Empire reduced its US Corporate management structure, resulting in a reduction in headcount which will reduce US Corporate overheads by \$0.3 million per annum. Further cost reduction opportunities remain a key focus of management.

## US OPERATIONS UPDATE

Empire's US operations had a strong Quarter characterized by a material increase in EBITDAX from \$0.4 million in Q4 2018 to \$1.0 million in the Quarter.

The Kansas Production Enhancement Project resulted in increased oil revenues during the Quarter.

The total gross cost of the project was \$355,000 and resulted in a total increase in peak gross production rates of 182 bopd for the wells on which workovers and recompletions were carried out.

The total investment made in the project was recovered from increased cash flows during the Quarter.

At the end of the Quarter, the production rates resulting from the program were running at approximately 105 bopd gross (~76 bopd to Empire's net revenue interest).

Empire has carried out an analysis of the impact of the project on the Net Present Value of the relevant wells. The increase in NPV for the wells in question from the FY 2017 reserve report to the FY 2018 reserve report was approximately \$2.1 million, which was due primarily to increased forecast production rates and expected ultimate recoveries ("EUR"). The increase in NPV that has been demonstrated from the results of the project has had a positive impact on the US Asset Sale process.

Empire's new hedging program came into effect at the beginning of the Quarter. This had a beneficial impact on oil pricing with over 90% of production hedged at \$66.50 / barrel (less transportation and quality differentials).

The Appalachia operating team continues to demonstrate a strong focus on cost control and maintenance of production rates. New gas marketing agreements entered into with Appalachian gas marketers have seen improved differentials (the difference between the NYMEX Henry Hub benchmark and received price) of \$0.24 / mcf for the period commencing in April 2019 and ending in March 2020. In addition, approximately 50% of total Appalachia gas production for April 2019 to March 2020 was locked in at a fixed price of \$2.94 / mcf (which compares favourably to current market prices ~\$2.50 / mcf).

The revenue impact of improved production rates and new oil hedges was partly offset by weakness in market gas prices during the Quarter.

## **NORTHERN TERRITORY ONSHORE SHALE INDUSTRY ACTIVITY RAMPING UP**

As previously flagged to Shareholders, the Northern Territory Government has been pro-actively implementing regulations since April 2018 to allow the onshore shale petroleum industry to resume industry activities as quickly as possible.

Late in the Quarter, the Northern Territory Parliament passed the Petroleum Legislation Amendment Bill 2018. Shortly thereafter, the Northern Territory Government released draft Codes of Practice for onshore petroleum development. These were critical regulatory developments to allow industry participants to submit work program approval requests for onshore petroleum exploration and development activities.

Shortly after the end of the Quarter, the Northern Territory Department of Environment and Natural Resources ("DENR") announced that Santos had submitted an Environmental Management Plan ("EMP") for the drilling of two horizontal appraisal wells in EP161 which is the tenement that is immediately adjacent to Empire's EP187 tenement. The wells will be drilled into the Velkerri Shale which extends into Empire's EP187 tenement. Empire will be watching the results of the Santos program with interest as they will directly impact planning for further exploration activities on our tenements.

In January 2019, Falcon Oil & Gas Ltd (listed on TSX) announced that its joint venture partner, Origin Energy, had signed a drilling contract with a drilling company for a 2019 drilling program to evaluate the

potential of the liquids-rich gas fairways of both the Kyalla and Velkerri plays in their Beetaloo Basin tenements.

The potential for the Beetaloo Basin to become a major source of domestic gas supply and therefore a potential solution to the East Coast gas crisis has become a key political issue in the Australian Federal election campaign.

In the recent Federal Budget, the Federal Government announced that it would allocate A\$8.4 million to studies to fast-track the development of the Beetaloo Basin. Furthermore, during recent election campaigning, Federal Labor announced that if elected it would replace the Northern Australian Infrastructure Facility with a fund that would allocate A\$1.5 billion to the construction of gas pipelines to connect the Galilee, Bowen and Beetaloo Basins to the East Coast gas markets.

These developments demonstrate clear bipartisan political support for the development of the Beetaloo Basin at both the Territory and Federal levels and a clear commitment by major operators in the Beetaloo Basin to appraise Beetaloo Basin discoveries in the near future.

## **EMPIRE 2019 NORTHERN TERRITORY WORK PROGRAM UPDATE**

Empire has submitted a revised draft EMP to the DENR for the EP187 2019 2D seismic program and is working proactively with the Northern Territory Government and its departments to finalise approvals for the seismic program.

Empire had previously indicated that it expected to be in a position to commence seismic acquisition in April / May 2019 but incorporating the new regulations has pushed back the expected commencement date to the middle of the year (subject to regulatory approvals). Empire remains confident that it will be able to carry out the seismic program this year.

The key goal of Empire's EP187 2D seismic program is to gain a better understanding of the depth, thickness, lateral extent and geological complexity of the petroleum systems in EP187, especially the Velkerri Shale, in order to better inform future drilling programs and attract further capital support including from industry joint venture partners.

## **BOARD CHANGES**

On 6 February 2019, Empire announced the appointment of Professor John Warburton to the Board of Directors. Professor Warburton has 35 years of global professional oil and gas experience in operated and non-operated conventional and unconventional petroleum discovery, development and new business delivery. Professor Warburton has been a Director of Empire's wholly owned Northern Territory subsidiary, Imperial Oil & Gas Pty Limited ("Imperial") since 2011 and was its Chief Executive Officer from 2011 to 2014. As CEO of Imperial, he was responsible for the identification of Empire's Northern Territory assets in 2011. He was one of the first people in the industry to understand the potential of the Northern Territory's onshore shale basins as a direct result of which Imperial acquired over 14.5 million acreage of

highly prospective tenements which encompass both part of the Beetaloo sub-Basin and the vast majority of the McArthur Basin Central Trough. Professor Warburton has relevant ASX Board experience as a current Non-Executive Director of ASX-listed Senex Energy Limited.

On 5 February 2019, Empire announce the appointment of Mr. Paul Espie AO as Non-Executive Chairman replacing Mr. David Sutton who returned to the role of Non-Executive Director. Mr. Espie and Mr. Sutton's biographies are detailed in previous announcements, the 2018 Annual Report and on the Company's website.

On 6 February 2019, following an Extraordinary General Meeting called by Global Energy and Resources Development Limited, Ms. Linda Tang ceased being a Non-Executive Director of Empire after shareholders voted for her removal. The Board and management wish to thank Ms. Tang for her service as a Director of Empire and wish her the best for her future endeavours.

## **CEO EMPLOYMENT CONTRACT**

Mr. Alexander Underwood was appointed to the roles of Managing Director and Chief Executive Officer of Empire on 30 August 2018.

Mr. Underwood has continued to be remunerated under the terms of his prior consulting services agreements with Empire group companies which are detailed in the 2019 Annual Report.

Empire's Remuneration Committee is advised by a leading Australian remuneration consultant, Godfrey Remuneration Group, as to the appropriate composition of all elements of remuneration policy and practice, noting several key factors including:

- Empire's focus on reducing costs and maintaining cash reserves;
- Contractual commitments made to Mr. Underwood by prior management under his existing consulting services agreements;
- The objective of creating greater alignment between management and shareholder outcomes; and
- Benchmarking remuneration against similar-sized ASX listed oil and gas and resources companies.

The Board has now approved a base remuneration package for the CEO of A\$390,000 per annum (including superannuation), sign on compensation and eligibility for short term incentive and long term incentive arrangements as detailed in the Notice of Meeting for the 2019 Annual General Meeting to be conducted on 30 May 2019.

## OPERATING OVERVIEW - EMPIRE ENERGY USA, LLC

Empire Energy USA, LLC is a 100% owned subsidiary of Empire Energy Group Limited.

The Company's US operations generated EBITDA of \$1,026,536 (an increase of ~132% compared to the previous quarter). EBITDA in the prior quarter was negatively impacted by investment in the Kansas Production Enhancement Project, low oil prices and timing differences associated with the lag between increases in gas prices and receipt of revenue and costs associated with entering into the new debt facility.

### **Appalachia (Western New York and Pennsylvania)**

During the quarter, the Company negotiated new gas marketing agreements for the Appalachia region for the period commencing April 2019 and ending March 2020.

The new marketing agreements have resulted in an average improvement in the received gas price for floating price gas contracts relative to the NYMEX Henry Hub benchmark of US\$0.24 / mcf. This equates to an approximate increase of 10% in total floating price revenue based on current gas prices.

In addition, the Company entered into a fixed price gas offtake agreement with one of its gas marketers whereby it will receive a fixed gas price of US\$2.94 / mcf for approximately 50% of total gas production from April 2019 to March 2019.

Efforts continue to focus on maintaining production and expenses in line with budget projections.

### **Mid-Continent (Kansas and Oklahoma)**

First quarter oil production for the Mid-Continent Region was up 4.5% over same period 2018 despite elevated precipitation and moisture levels throughout 2018 and early 2019 which continued to hamper field operations.

During the quarter the MidCon operations sold 47,688 gross barrels vs. 45,645 barrels in the previous quarter. Continuing poor weather had a negative impact on production for the majority of the Kansas oil industry as a whole. Mechanical issues with producing equipment also contributed to lower than expected volumes.

The Production Enhancement Project which commenced in November 2018 was the main contributor to increased oil volumes and is considered a material success.

In addition to higher production rates, the project contributed to increasing both cash flow and the region's reserve base therefore providing additional value to the Company. The program is currently on hold while non-binding proposals to purchase the Kansas assets are evaluated.

## Production

All figures are in USD

Description	3 months to 31/03/2019	3 months to 31/03/2018	Year-to-Date 31/03/2019	Year-to-Date 31/03/2018
<b>Gross Production:</b>				
Oil (Bbls)	48,538	46,377	48,538	46,377
Natural Gas (Mcf)	563,038	531,773	563,038	531,773
<b>Oil (Bbls)</b>				
Appalachia	211	413	211	413
Mid-Con	32,672	30,825	32,672	30,825
Total Oil	32,883	31,238	32,883	31,238
<b>Weighted Avg Oil Sales Price (\$/Bbl)</b>				
Before Hedge	49.82	57.88	49.82	57.88
After Hedge	59.35	57.88	59.35	57.88
<b>Natural gas (Mcf)</b>				
Appalachia	439,717	425,888	439,717	425,888
Mid-Con	1,624	3,036	1,624	3,036
Total Natural Gas	441,341	428,924	441,341	428,924
<b>Weighted Avg Sales Price (\$/Mcf)</b>				
Before Hedge	2.90	2.65	2.90	2.65
After Hedge	2.99	3.30	2.99	3.30
<b>Oil Equivalent (Boe):</b>				
Appalachia	73,497	71,394	73,497	71,394
Mid-Con	32,942	31,331	32,942	31,331
Total	106,439	102,725	106,439	102,725
<b>Boe/d</b>	<b>1,183</b>	<b>1,141</b>	<b>1,183</b>	<b>1,141</b>
<b>Weighted Avg Sales Price (\$/Boe)</b>				
Before Hedge	27.42	28.66	27.42	28.66
After Hedge	30.71	31.37	30.71	31.37
<b>Lifting Costs (incl. taxes):</b>				
Oil – Midcon (\$/Bbl)	21.99	19.62	21.99	19.62
Natural gas – Appalachia (\$/Mcf)	1.18	1.29	1.18	1.29
Oil Equivalent (\$/BOE)	11.68	11.34	11.68	11.34
<b>Net Back (\$/Boe)</b>	<b>19.03</b>	<b>20.03</b>	<b>19.03</b>	<b>20.03</b>

## Financials

All figures are in USD

Description	3 months to 31/03/2019	3 months to 31/03/2018	Year-to-Date 31/03/2019	Year-to-Date 31/03/2018
Net Revenue:				
Oil Sales	1,951,463	1,808,069	1,951,463	1,808,069
Natural Gas Sales	1,317,536	1,356,136	1,317,536	1,356,136
Working Interest	105	58,582	105	58,582
Net Admin Income	77,009	83,540	77,009	83,540
Other Income	4,892	54,729	4,892	54,729
<b>Total Revenue</b>	<b>3,351,005</b>	<b>3,361,056</b>	<b>3,351,005</b>	<b>3,361,056</b>
Production costs:				
Lease operating expenses – Oil	670,611	664,440	670,611	664,440
Lease operating expenses – Gas	487,940	530,276	487,940	530,276
Taxes – Oil	52,412	(51,562)	52,412	(51,562)
Taxes – Natural Gas	30,468	24,539	30,468	24,539
<b>Total</b>	<b>1,241,431</b>	<b>1,167,693</b>	<b>1,241,431</b>	<b>1,167,693</b>
<b>Field EBITDAX</b>	<b>2,109,574</b>	<b>2,193,363</b>	<b>2,109,574</b>	<b>2,193,363</b>
<b>Less:</b>				
Inventory adjustment	(5,463)	(30,567)	(5,463)	(30,567)
Reserve Enhancements	65,783	10,236	65,783	10,236
Nonrecurring expenses	152,464	181,815	152,464	181,815
G & G Costs	-	-	-	-
Field Overhead	501,000	501,000	501,000	501,000
<b>Total</b>	<b>713,784</b>	<b>662,484</b>	<b>713,784</b>	<b>662,484</b>
<b>Operating EBITDAX</b>	<b>1,395,790</b>	<b>1,530,879</b>	<b>1,395,790</b>	<b>1,530,879</b>
<b>Less:</b>				
Field G & A	98,814	140,717	98,814	140,717
Corporate G & A	257,747	372,526	257,747	372,526
Delay rental payments	1,291	11,348	1,291	11,348
Land Overhead & Non-leasing costs	-	55	-	55
<b>Total</b>	<b>357,852</b>	<b>524,646</b>	<b>357,852</b>	<b>524,646</b>
<b>EBITDAX</b>	<b>1,037,938</b>	<b>1,006,233</b>	<b>1,037,938</b>	<b>1,006,233</b>

### Exploration/Acquisition Expenses

All figures are in USD

Description	3 months to 31/03/2019	3 months to 31/03/2018	Year-to-Date 31/03/2019	Year-to-Date 31/03/2018
<b>EBITDAX</b>	1,037,938	1,006,233	1,037,938	1,006,233
<b>Less:</b>				
Geological Services	1,875	215	1,875	215
Acquisition related expenses	9,527	-	9,527	-
Capital raise expenses	-	-	-	-
Dry hole expenses	-	-	-	-
<b>Total</b>	<b>11,402</b>	<b>215</b>	<b>11,402</b>	<b>215</b>
<b>EBITDA</b>	<b>1,026,536</b>	<b>1,006,018</b>	<b>1,026,536</b>	<b>1,006,018</b>

### Net Earnings

(Unaudited)

All figures are in USD

Description	3 months to 31/03/2019	3 months to 31/03/2018	Year-to-Date 31/03/2019	Year-to-Date 31/03/2018
<b>EBITDA</b>	1,026,536	1,006,018	1,026,536	1,006,018
<b>Less:</b>				
Depn, Depl, Amort & ARO	421,672	517,523	421,672	517,523
Interest	571,696	768,023	571,696	768,023
(Gain) loss on sale of assets	-	-	-	-
P&A vs. ARO	-	-	-	-
Bad debts	1,298	9,788	1,298	9,788
Non-Cash & Interest Expenses	994,666	1,295,334	994,666	1,295,334
<b>Earnings before Tax</b>	<b>31,870</b>	<b>(289,316)</b>	<b>31,870</b>	<b>(289,316)</b>
<b>EBITDA/Interest (times)</b>	<b>1.80</b>	<b>1.31</b>	<b>1.80</b>	<b>1.31</b>

### Capital Expenditure/Asset Sales

All figures are in USD

Description	3 months to 31/03/2019	3 months to 31/03/2018	Year-to-Date 31/03/2019	Year-to-Date 31/03/2018
Capital Expenditures				
Acquisition Capital	-	633	-	633
New Wells - IDC	-	8,108	-	8,108
New Wells - Capital	8,953	60,347	8,953	60,347
Undeveloped Leases	-	55	-	55
<b>Capital Expenditures</b>	<b>8,953</b>	<b>69,143</b>	<b>8,953</b>	<b>69,143</b>

## NET INCOME SUMMARY - USA OPERATIONS

The accompanying table is for comparative purposes and consists of unaudited, condensed, consolidated financial statements prepared in accordance with generally accepted accounting principles in the United States of America ("U.S. GAAP") for interim financial information. Accordingly, they do not include all the information and footnotes required by U.S. GAAP for complete financial statements, although the Company believes that the disclosures made below are adequate to make the information not misleading.

*All figures are in USD*

Description	3 months to 31/03/2019	3 months to 31/03/2018	Year-to-Date 31/03/2019	Year-to-Date 31/03/2018
Revenues:	3,351,005	3,361,056	3,351,005	3,361,056
Costs & Expenses:				
Production costs & taxes	1,955,215	1,830,177	1,955,215	1,830,177
Depn, Depletion, Amort & ARO	421,672	517,523	421,672	517,523
General & Administration	369,254	524,861	369,254	524,861
Income from Operations	604,864	488,495	604,864	488,495
Interest	571,696	768,023	571,696	768,023
(Gain)/Loss on sale of assets	-	-	-	-
P&A vs. ARO	-	-	-	-
Bad debts	1,298	9,788	1,298	9,788
Net Income/(Loss)	31,870	(289,316)	31,870	(289,316)

## IMPERIAL OIL & GAS PTY LTD (100%):

The Company's operations are in the Northern Territory, Australia.

### Operations

Current quarter actual and accrued expenses and capitalized costs. (Company policy is to expense all exploration costs):

*All figures are in USD*

Description	3 months to 31/03/2019	3 months to 31/03/2018	Year-to-Date 31/03/2019	Year-to-Date 31/03/2018
Exploration Expenses – NT	104,414	116,845	104,414	116,845

Northern Territory exploration program costs were broadly consistent with the prior quarter as Imperial's regulatory approvals for the 2019 exploration program continue.

## EMPIRE ENERGY GROUP LIMITED

Empire Energy Group Limited's head office is in Sydney, Australia. Operating costs cover all Group overhead, including the costs of listing on both the Australian Securities Exchange and the OTC Exchange, New York, USA.

*All figures are in USD*

Description	3 months to 31/03/2019	3 months to 31/03/2018	Year-to-Date 31/03/2019	Year-to-Date 31/03/2018
Revenue	40,223	38,890	40,223	38,890
Less Expenses:				
Consultants	54,262	92,408	54,262	92,408
Directors/Employment Costs	60,779	96,045	60,779	96,045
Listing Expenses	31,475	9,417	31,475	9,417
<b>A. G&amp;A</b>	<b>202,869</b>	<b>133,527</b>	<b>202,869</b>	<b>133,527</b>
<b>EBITDAX – Head office (EEG)</b>	<b>(309,162)</b>	<b>(292,507)</b>	<b>(309,162)</b>	<b>(292,507)</b>
<b>EBITDAX – (EEUS)</b>	<b>1,037,938</b>	<b>1,006,938</b>	<b>1,037,938</b>	<b>1,006,938</b>
<b>EBITDAX – GROUP</b>	<b>728,776</b>	<b>713,726</b>	<b>728,776</b>	<b>713,726</b>

**A.** Includes \$117,319 in relation to the s249D General Meeting called by Global Energy and Resources Development, offset partly by material reduction in corporate overheads.

## Financial Terminology

Statements in this announcement may refer to the terms “EBITDAX”, Field EBITDAX, “field netback” or “netback”, “cash flow” and “payout ratio”, which are non-IFRS financial measures that do not have any standardised meaning prescribed by IFRS and therefore may not be comparable to similar measures presented by other companies. Investors should be cautioned that these measures should not be construed as an alternative to net income calculated in accordance with IFRS. Management believes that these measures provide useful information to investors and management since these terms reflect the quality of production, the level of profitability, the ability to drive growth through the funding of future capital expenditures and sustainability of either debt repayment programs or distribution to shareholders. However, management have attempted to ensure these non-IFRS measures are consistent with reporting by other similar E&P companies so useful production and financial comparisons can be made.

### Note Regarding Barrel of Oil Equivalent

Empire Energy has adopted the standard of 6 Mcf to 1 Bbl when converting natural gas to Boe. Boe may be misleading, particularly if used in isolation. A Boe conversion ratio of 6 Mcf to 1 Bbl is based on energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead. In addition, given that the value ratio based on the current price of oil as compared to natural gas is significantly different from the energy equivalent of six to one, utilizing a Boe conversion ratio of 6 Mcf to 1 Bbl would be misleading as an indication of value.

### Note Regarding Reserves

Reserve references in this report have been extracted from the Company’s 2018 Annual Report and 2017 Annual Report. The Company confirms that it is not aware of any new information or data that materially affects the information contained in the relevant announcements and that all material assumptions and technical parameters underpinning the estimates in that announcement continue to apply and have not materially changed. Reserves were reported as at 31 December 2018. All volumes presented are net volumes and have had subtracted associated royalty burdens. The probabilistic method was used to calculate P50 reserves. The deterministic method was used to calculate 1P, 2P & 3P reserves. The reference point used for measuring and assessing the estimated petroleum reserves is the wellhead.

### Note Regarding Forward- Looking Statements

Certain statements made and information contained in this press release are forward-looking statements and forward-looking information (collectively referred to as “forward-looking statements”) within the meaning of Australian securities laws. All statements other than statements of historic fact are forward-looking statements.

## Glossary

<b>AFE</b>	- Authority for expenditure	<b>PDNP</b>	- Proved developed non- producing
<b>Bbl</b>	- One barrel of crude oil, 42 US gallons liquid volume	<b>PDP</b>	- Proved, developed producing well
<b>Boe</b>	- Barrel of oil equivalent, determined using the ratio of six Mcf of natural gas to one Bbl of crude oil, condensate or natural gas liquids	<b>PV10</b>	- Pre-tax value of a cash flow stream, over a defined time period, discounted at 10%
<b>Delay Rentals</b>	- Payments made to Lessor to maintain leases	<b>Royalty</b>	- Funds received by the landowner for the production of oil or gas, free of costs, except taxes
<b>GIP</b>	- Gas in place	<b>ROW</b>	- Right of way
<b>HBP</b>	- Held by production	<b>Tcf</b>	- Trillion cubic feet
<b>Mcf</b>	- One thousand cubic feet (natural gas volumetric measurement)	<b>TOC</b>	- Total organic content
<b>M or MM</b>	- M = Thousand, MM = Million	<b>WI</b>	- Working interest
<b>NRI</b>	- Net revenue interest		