MGX Minerals Advances 110,000 Acre Petrolithium Project Paradox Basin, Utah

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VANCOUVER, British Columbia, Dec. 15, 2017 (GLOBE NEWSWIRE) -- MGX Minerals Inc. (“MGX” or the “Company”) (CSE:XMG) (OTCQB:MGXMF) (FKT:1MG) is pleased to report that the initial ground survey is nearing completion in preparation for a detailed 3D seismic survey of its Utah Petrolithium project (the “Project”). The survey of the Project includes approximately 9,000 source points. This model will outline subsurface geological formations and structures favorable for accumulations of oil and gas as well as lithium brine bearing formations.

The Project is located next to the Lisbon Valley oilfield located within the Paradox Basin, Utah which has shown historical brine content as high as 730 ppm lithium (Superior Oil 88-21P) and past production of oil exceeding 50 million barrels. The Company’s cumulative Project land position comprises over 110,000 acres of oil and gas leases and 118,000 acres of largely overlying mineral claims, including 80,380 acres of unitized Federal, State and Private lands within the Blueberry Unit (“Blueberry”) where MGX controls the overwhelming majority of mineral claims. This represents the first large scale integrated petroleum and lithium project ever developed in the United States.

NFLi-5 Rapid Lithium Extraction System
MGX and engineering partner PurLucid Treatment Systems (“PurLucid”) are nearing completion of the first commercial scale rapid lithium extraction plant and are currently in flow and pressure testing. MGX expects delivery and deployment in January 2018 (see press release dated December 6, 2017). This system is capable of processing up to 750 barrels per day (120 cubic meters) and serves as the commercial platform for the first 7500 barrels per day (1200 cubic meters) now in fabrication. This technology has been extensively tested in pilot plant phase since July 2017 on all types of lithium bearing brine throughout the Company’s extensive project portfolio including high hydrocarbon evaporator blowdown (EBD) wastewater from SAGD oilsands production, traditional oil and gas wastewater, traditional lithium brine, and high magnesium wastewater concentrate from mine tailings among other sources throughout North America. As MGX’s Paradox Petrolithium project advances, systems will be deployed for hydrocarbon separation and mineral extraction. The Project relies heavily on MGX-PurLucid patented and patent-pending water handling and rapid lithium extraction technology capable of processing complex brines in conjunction with oil and gas development that produces a clean water by-product aimed at mitigating water handling and disposal cost and providing an innovative clean water solution to the oil and gas industry. It has been suggested that Paradox Basin unconventional oil and gas development has been hindered by high total dissolved solids and water handling challenges and costs.[1]

Integrated Petrolithium Engineering
Initial engineering studies have been completed by SigmaCubed of Denver, Colorado modelling of simultaneous (brine / oil and gas) production scenarios aimed at drawing brine and oil from a single well. Reservoir simulations were run for the different scenarios to determine the sensitivity of the results to the input assumptions. There are three main variables – lateral horizontal length (feet), net reservoir height (feet) and permeability (millidarcies). A base case was run for a vertical well. Production rates (BWPD) were then calculated for different combinations of these three variables. For the purposes of this study, a 1,500-psi pressure differential drawdown at the perforation interval was assumed. A pressure drawdown across perforations can be achieved by various different production methods (i.e. rod pump, gas lift, hydraulic pump, jet pump, etc.). The study found that it did not matter how the pressure differential is achieved, reservoir conditions will ultimately determine production volumes. Also, for the purposes of this study, the tubing size was limited to one case (2 7/8” O.D.) primarily because the 2 7/8” tubing x 5 1/2” production casing configuration is one of the most common wellbore configurations utilized by the petroleum industry. Upon reviewing the results of this study, it become increasingly apparent of the multitude of variable combinations resulting from the study of just one tubing size. The results of this study can be ratioed up or down to obtain relative production volumes for 2 3/8” or 3 1/2” tubing strings.

Produced water density, oil API gravity and water oil ratios were found to have negligible effects on total

production volumes. The biggest effect these variables had would be in the fluctuation of the producing fluid level in the wellbore. For the purposes of this study, a full column of 100% petroleum brine water weighing 11.0 ppg was assumed.

Type of Wellbore	Production Rate (BWPD)	Ratio Increase
Vertical	1,064	-
1,500' lateral	3,673	3.5
3,000' lateral	5,211	4.9
5,000' lateral	6,858	6.4

Assumptions

10 md permeability
55’ net h
7,000’ TVD
2 ⅞” tubing to 7,000’ TVD MD
4 ½” liner in lateral 7,000’ to TD
1,500 psig pressure differential
Drawdown across perforations

Additional engineering work will focus on the effect of large diameter casing and related costs on a per barrel basis starting with 7 ½” and consideration of techniques and scale currently utilized in geothermal brine wells.

Lisbon Valley and Paradox Basin Geology
The Lisbon Valley Field has approximately 140 wells. According to production statistics, as reported by the Utah Department of Natural Resources, Oil, Gas and Mining Division, cumulative lifetime production within the Lisbon Valley oilfield has totaled 51.4 million barrels of oil as of June 2017 (“Oil Production by Field, Utah Department of Natural Resources, Division of Oil, Gas and Mining”; June 2017; Click Here). The Paradox Basin has been noted by the USGS as having one of the largest undeveloped oil and gas fields in the United States (“Assessment of Oil and Gas Resources in the Paradox Basin Province…”; USGS; 2011; Click Here). MGX is currently earning a 75% working interest in the Project, with the remaining interest primarily controlled by a private Utah corporation (the “Paradox Partner”). The Paradox Partner has been engaged by MGX as subcontracted operator of the Project (see press release dated March 23, 2017).

The Project is host to National Instrument (N.I) 51-101 estimated prospective resources (the “Estimate”) consisting of leasehold and royalty interests in San Juan County, Utah and Miguel County. Colorado. The estimate was prepared by the Ryder Scott Company, L.P. (“Ryder Scott”), an independent qualified reserves evaluator within the meaning of N.I. 51-101 - Standards of Disclosure for Oil and Gas Activities (“NI 51-101”), with an effective date of June 30, 2017. The Estimate was prepared in accordance with N.I. 51-101 and the Canadian Oil and Gas Evaluation Handbook.

Estimated Gross Volumes
Unrisked Prospective (Recoverable) Hydrocarbon Resources
Leasehold Interest in San Juan County, Utah and San Miguel County, Colorado of
MGX MINERALS INC.
As of June 30,2017

Formation	ULTIMATE RECOVERY OIL – MMBO			ULTIMATE RECOVERY GAS – BCF			COC*
	LOW	BEST	HIGH	LOW	BEST	HIGH	
Paradox Clastics							
CB2	41.799	59.498	85.324	33.441	47.602	68.266	0.075
CB3	41.915	60.641	85.833	33.536	48.517	68.671	0.075
CB4	12.766	18.745	26.692	10.213	14.781	21.355	0.075
CB5	33.185	48.065	68.841	26.548	38.453	55.074	0.075
CB6	6.603	9.607	13.874	5.283	7.686	11.100	0.045
CB7	1.892	2.735	3.948	1.514	2.188	3.158	0.032
CB8	19.108	27.525	39.079	15.287	22.022	31.264	0.068

CB9	11.452	16.671	23.711	9.162	13.337	18.970	0.068
CB10	14.565	21.169	30.088	11.652	16.936	24.073	0.068
CB11	2.021	2.929	4.244	1.617	2.344	3.396	0.032
CB12	9.352	13.609	19.525	7.482	10.887	15.620	0.045
CB13	9.333	13.158	19.297	7.468	10.815	15.438	0.045
CB14	3.195	4.621	6.634	2.556	3.697	5.308	0.045
CB15	6.455	9.432	13.633	5.164	7.546	10.908	0.045
CB16	2.752	3.987	5.768	2.202	3.190	4.615	0.045
CB17	3.770	5.390	7.835	3.016	4.313	6.269	0.040
CB18	4.673	6.728	9.572	3.739	5.383	7.658	0.045
CB19	16.690	24.226	34.542	13.358	19.381	27.636	0.068
CB20	2.931	4.253	6.118	2.435	3.402	4.895	0.040
CB21 (Cane Creek)	35.336	51.338	73.971	28.272	41.073	59.177	0.097
CB22	5.635	8.261	11.957	4.508	6.609	9.566	0.045
Leadville	1.000	2.100	4.000	153.000	231.700	341.600	0.066

**COC – Chance of Commerciality = Chance of Discovery * Chance of Development*

Qualified Person
The technical portions of this press release were prepared and reviewed by Andris Kikauka (P. Geo.), Vice President of Exploration for MGX Minerals. Mr. Kikauka is a non-independent Qualified Person within the meaning of National Instrument (N.I.) 43-101 Standards.

MGX may decide to advance its petrolithium projects into production without first establishing mineral resources supported by an independent technical report or completing a feasibility study. A production decision without the benefit of a technical report independently establishing mineral resources or reserves and any feasibility study demonstrating economic and technical viability creates increased uncertainty and heightens economic and technical risks of failure. Historically, such projects have a much higher risk of economic or technical failure.

About MGX Minerals
MGX Minerals is a diversified Canadian resource company with interests in advanced material and energy assets throughout North America. Learn more at www.mgxminerals.com.

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Forward-Looking Statements
This press release contains forward-looking information or forward-looking statements (collectively "forward-looking information") within the meaning of applicable securities laws. Forward-looking information is typically identified by words such as: "believe", "expect", "anticipate", "intend", "estimate", "potentially" and similar expressions, or are those, which, by their nature, refer to future events. The Company cautions investors that any forward-looking information provided by the Company is not a guarantee of future results or performance, and that actual results may differ materially from those in forward-looking information as a result of various factors. The reader is referred to the Company's public filings for a more complete discussion of such risk factors and their potential effects which may be accessed through the Company's profile on SEDAR at www.sedar.com.

[1] Analysis of a Long Cane Creek Horizontal: New Insight into an Unconventional Tight Oil Resource Play, Paradox Basin, Utah; Whiting Oil & Gas Corp; 2010

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