

**NEWS RELEASE**  
October 21, 2016

**Symbol: TSX-V: MMS**  
For Immediate Dissemination

## **MACARTHUR MINERALS LOCATES LITHIUM IN NEVADA IN THE BASIN ADJACENT TO CLAYTON VALLEY WITH SURFACE GRADES UP TO 145.5 PPM LITHIUM**

**Macarthur Minerals Limited (TSX-V: MMS)** (the “Company” or “Macarthur Minerals”) is pleased to announce that it has located lithium near surface in the Lida Valley, Nevada, the basin adjacent to the Clayton Valley, which hosts North America’s only producing lithium mine, Albemarle’s Silver Peak Lithium Mine.

Lithium has been located at the Company’s new Stonewall Lithium Project (“Stonewall Project”) in Southern Nevada, from a shallow auger drilling program conducted as part of due diligence, for acquisition of the Stonewall Project, which is now complete. All nine shallow auger drill holes reported lithium, with grades up to 145.5 parts per million (“ppm”) lithium (“Li”) from near surface sediment, confirming that lithium is present in the Lida Valley.

David Taplin, President, CEO and Director of Macarthur Minerals commented:

*“Finding lithium at surface at the Stonewall Project, in the Lida Valley, the basin adjacent to North America’s only producing lithium mine, is potentially significant; not only for Macarthur but it also emphasises the lithium potential of the Lida Valley. Deeper drilling into the basin and the brines is a priority to ascertain if the same lithium brine potential exists in the Lida Valley as has been discovered and extracted in the adjacent Clayton Valley. We have completed acquisition of the Stonewall Project and are excited about moving this project forward.”*

### **Results of Due Diligence and Auger Drilling Program**

A United States mineral exploration company performed initial technical due diligence evaluation work on lithium for the Stonewall Project. An initial shallow auger drilling program on the Stonewall Project for the purposes of collecting soil and brine samples for lithium was conducted. A total of nine auger holes were drilled to depths of between 1.07 – 2.13 meters (3.5 to 7 feet) at various locations across the Stonewall Project playa (dry lake bed). All holes contained lithium with sediment assays ranging from 34.6 ppm Li and up to 145.5 ppm Li.

The highest value analytical results were from holes SW 7 – 145.5 ppm Li and SW 17 – 95.9 ppm Li. The sediment samples were taken under chain of custody to the ALS Chemex lab in Reno, Nevada. The samples were analysed for 51 individual elements by Method ME – MS 41, which is an ultra trace level analysis using Inductively Coupled Plasma – Mass Spectrometry (ICP – MS) methods, with an Aqua Regia digestion. Figure 1 shows the location of the Stonewall Project claims over the majority of the playa, drill holes and results.

### **Stonewall Project**

The Stonewall Project covers an area of approximately 5,460 acres (22.1 square kilometers) and the majority of a playa in Nevada’s Lida Valley Basin, the adjacent basin to the Clayton Valley Basin, which hosts the United States’ only producing lithium mine.

As indicated in Figure 2, the Stonewall Project is strategically located in the Nevada lithium supply hub, 306 kilometers (191 miles) southeast of Tesla’s new Gigafactory, which has a planned production capacity

of 35 gigawatt-hours per year by 2020<sup>1</sup>.

Figure 1 shows the location of the Stonewall Project claims over the majority of the playa consisting of 37 Placer Mine Claims, located in the Lida Valley, Nevada.

The Stonewall Project is located in an intermontane basin and is surrounded by tertiary volcanic rhyolitic rock units, which are anomalously high in lithium. These rhyolitic units are thought to act as a potential source rock for lithium in the Clayton Valley brines. The potential lithium source rock includes flows and tuffs that likely extend below the alluvial cover.

The Stonewall Project is located in the mining friendly Nye and Esmeralda Counties of Nevada and is serviced by excellent infrastructure with access to power, water, labour and is bisected by the Veterans Memorial Highway Number 95. The regional climate also favours natural and inexpensive evaporation for brine concentration and allows year-round work.

### **Assignment Agreement**

Macarthur Minerals, through its wholly owned US subsidiary, Macarthur Lithium Nevada Limited, has entered into an Assignment Agreement with Voltaic Minerals Corp. (TSX-V: VLT, FSE: 2P61) ("Voltaic") to acquire the Stonewall Project on the following key terms:

- Macarthur Minerals will issue 2 million ordinary shares to Voltaic at 10 cents per share; and
- payment to Voltaic of US\$50,000 within 6 months.

### **Next Steps for the Stonewall Project**

The Company plans to conduct further extensive sampling of the Stonewall Project to compliment the shallow auger drilling program conducted as part of due diligence. This extensive sampling program will allow the Company a property wide view of lithium distribution contained in the basin fill sediments, which outcrop at the surface of the playa. This sampling will also allow for a partial indication of the lithium content of the deeper sediments. At present, the exact depth and composition of the sediments in the basin are unknown. Macarthur Mineral's geological team expects sediments to be at least approximately 92 meters (300 feet) deep. A stock watering well located approximately 400 meters (a quarter mile) to the south of the claim block was drilled to a depth of approximately 92 meters (300 feet).

It is also expected, that potential aquifers similar in composition and thickness to the upper and lower ash aquifers in the nearby Clayton Valley will be encountered at depth. The ash aquifers in the Clayton Valley were deposited by continental scale volcanic eruptions from calderas located 150 kilometers to the West (90 miles) and 790 kilometers North West (475 miles) of the Stonewall Project area. Ash fall from these volcanoes was deposited in the nearby Clayton Valley 52 kilometers to the North West (31 miles) and most likely also in the basins of the Lida Valley, where the Stonewall Project is located. The ash aquifers are both a host for and a possible source for lithium brines in the Clayton Valley.

Once an extensive soil sampling program is completed, additional exploration will be carried out by geophysical methods. A detailed gravity survey may be conducted. Once the results of the soil sampling survey and potentially, a gravity survey are integrated and analysed, drill sites will be selected for detailed subsurface investigation of the project.

### **QUALIFIED PERSONS**

Mr Randy Henkle, a Registered Member of the Society of Mining and Exploration and a Professional Geologist licensed in British Columbia, Canada, is a Qualified Person as defined in National Instrument 43-101. Mr Henkle has reviewed and approved the technical information contained in this news release.

### **ABOUT MACARTHUR MINERALS LIMITED (TSX-V: MMS)**

Macarthur Minerals Limited is an exploration and development company that is focused on identifying and developing high grade lithium and counter cyclical investments, with significant lithium exploration interest in Australia and Nevada. In addition, Macarthur has two iron ore projects in Western Australia; the Ularring

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<sup>1</sup> [https://www.tesla.com/sites/default/files/blog\\_attachments/gigafactory.pdf](https://www.tesla.com/sites/default/files/blog_attachments/gigafactory.pdf)

hematite project and the Moonshine magnetite project.

On behalf of the Board of Directors,  
**MACARTHUR MINERALS LIMITED**

"Cameron McCall"

Cameron McCall, Chairman

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**Figure 1 – Geological Setting of Stonewall Project and Location of the drill holes and results**

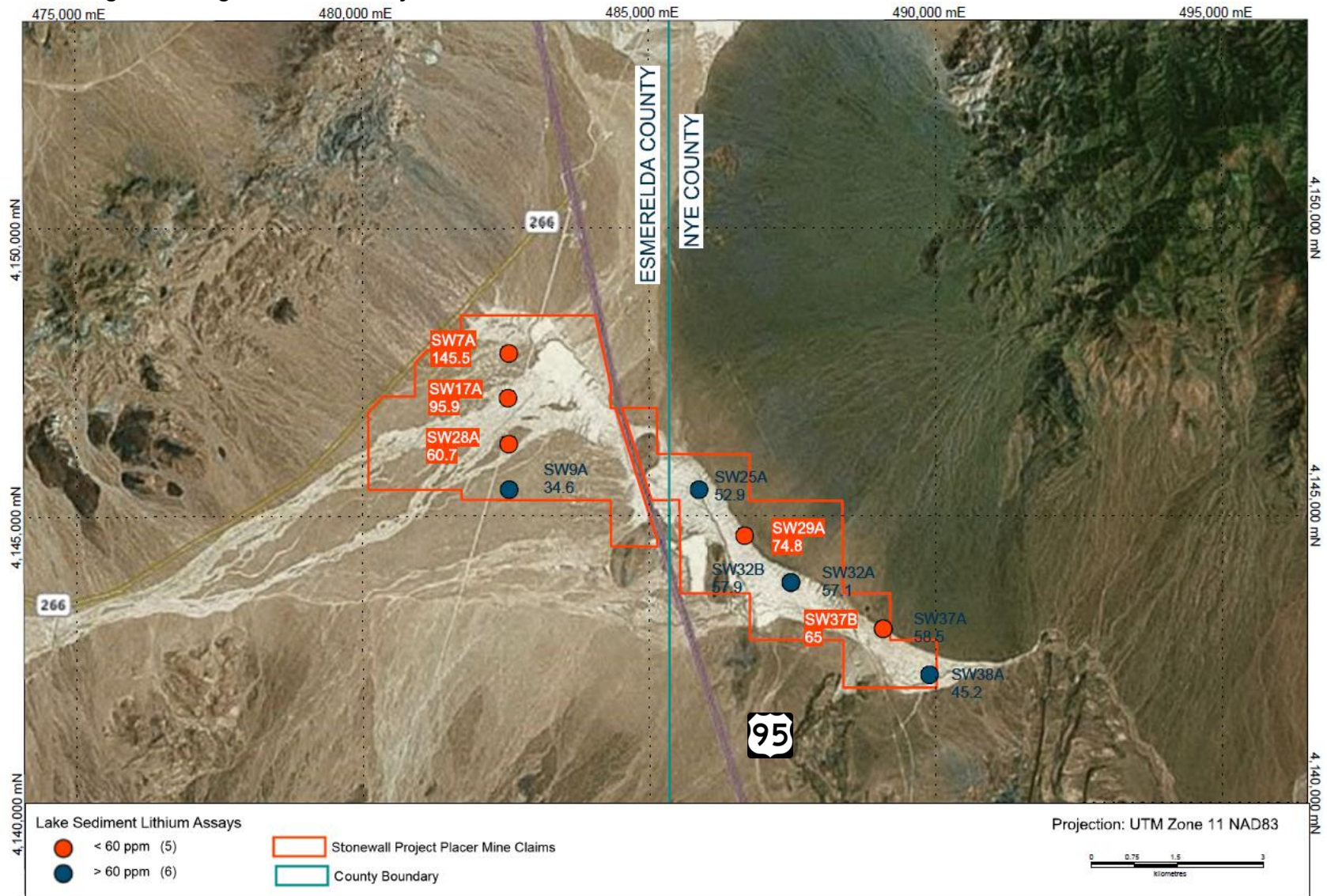




Figure 2 - Strategic Location of the Stonewall Project

